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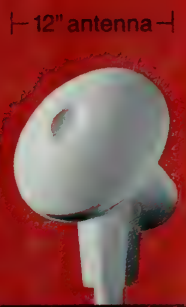

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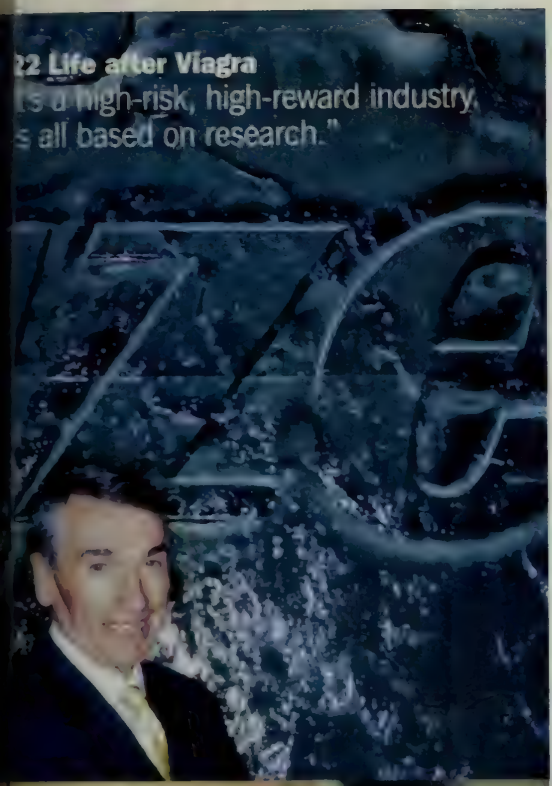

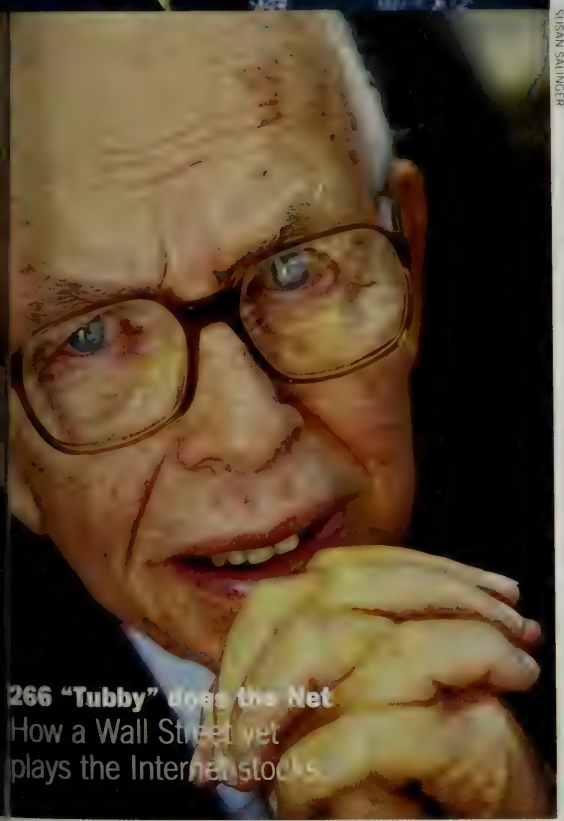

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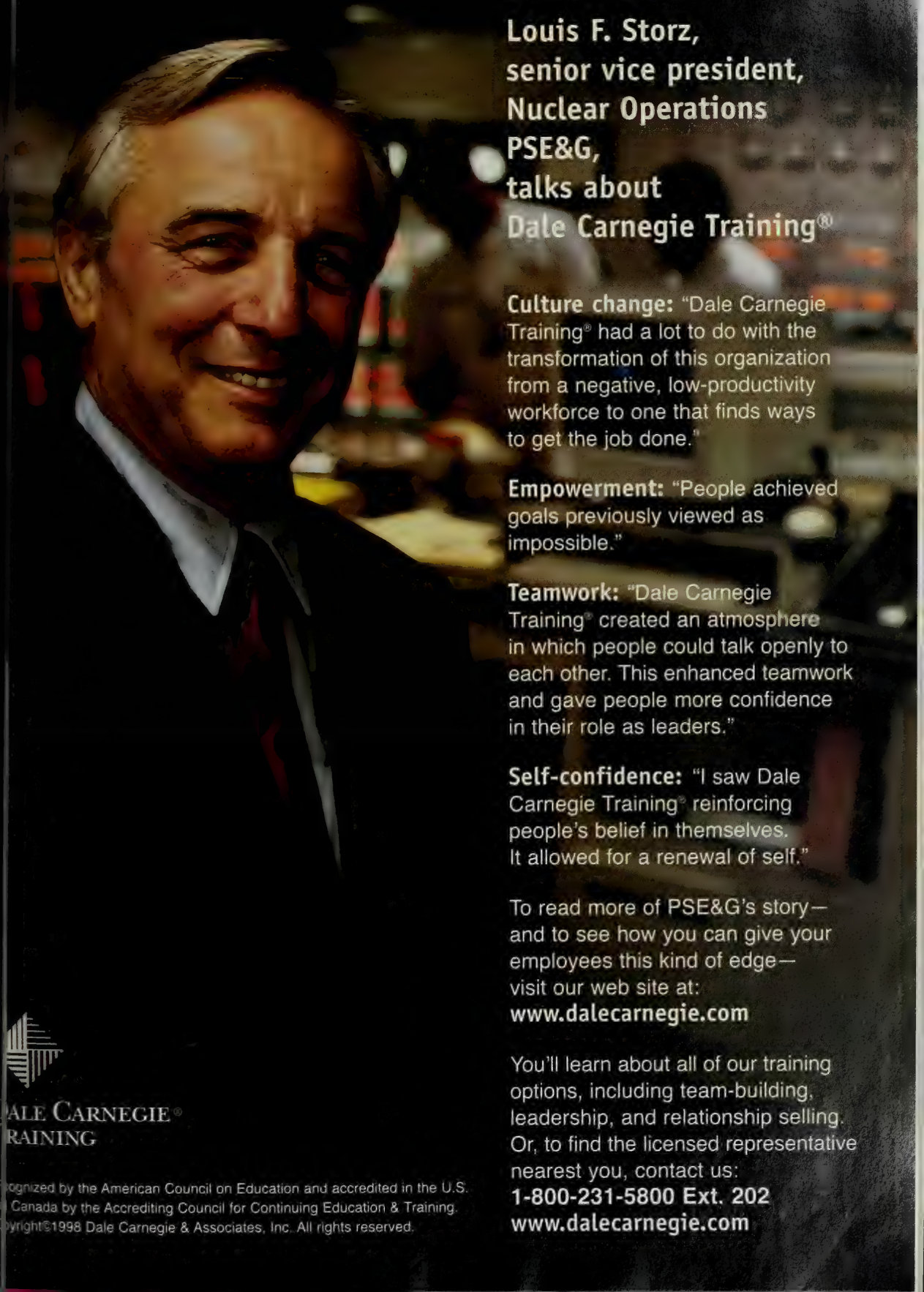

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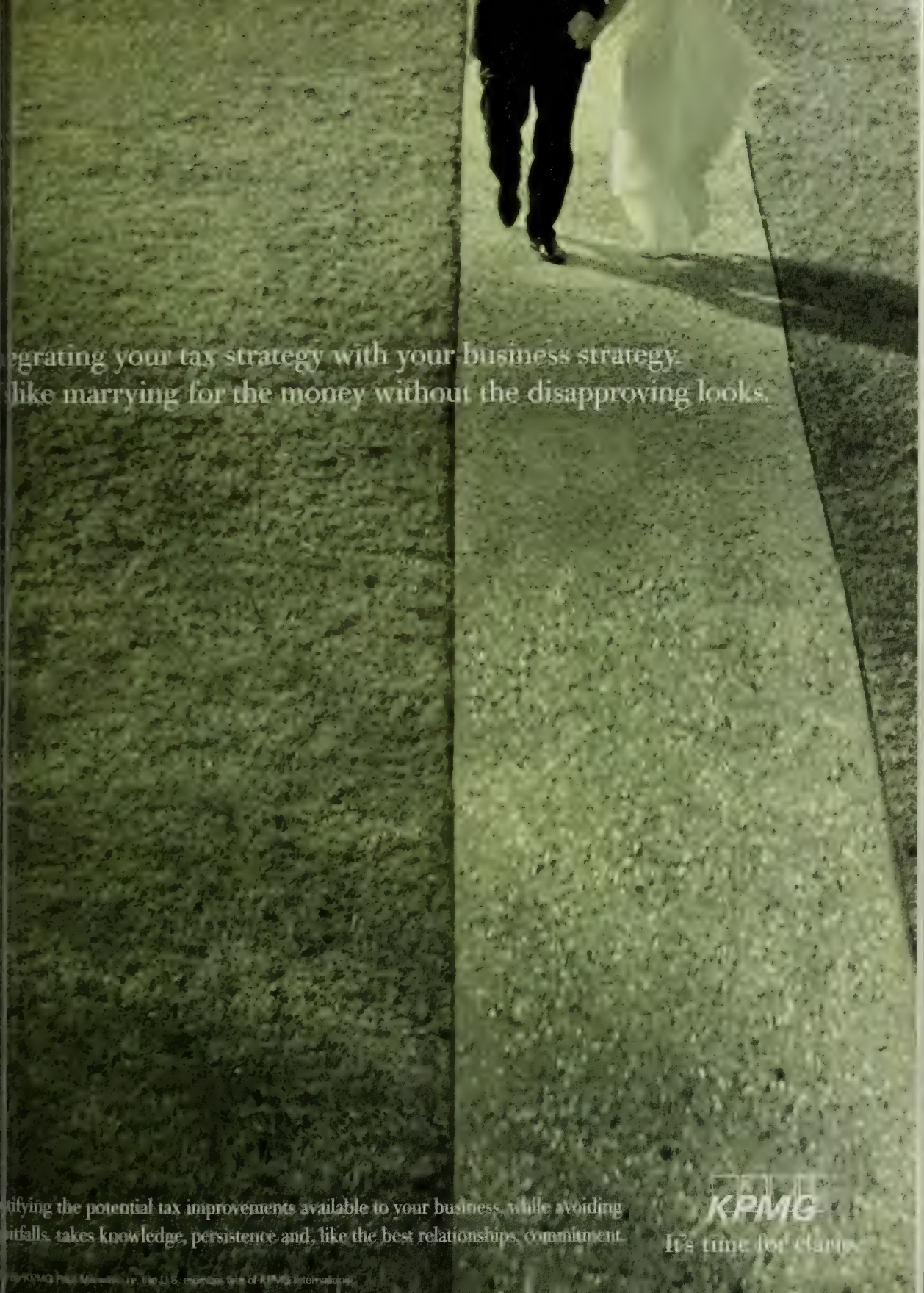
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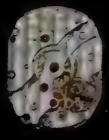

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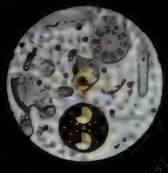

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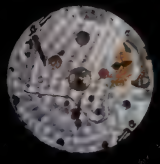

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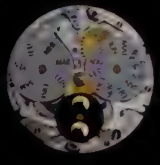

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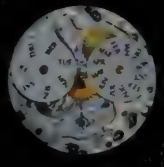

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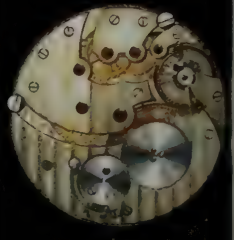

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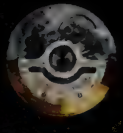

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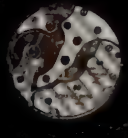

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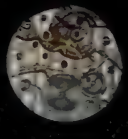

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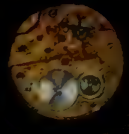

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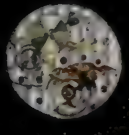

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Happy New Year

My signature appears below for the last time. I'm happy to say it introduces a good issue.

AT THE TURN OF EACH 12-month period we pick a Company of the Year from among major U.S. corporations. This is not a popularity contest like those "most admired" lists. We are looking for staying power. So far none of the companies we selected—Hewlett-Packard, Compaq Computer and Chrysler—have disappointed. We chose Pfizer this year. It's not the biggest in its industry, but it is in many ways the best. It has, in the words of its chairman, served shareholders best by putting them second, as Scott Woolley's story, "Science and savvy," explains. Starts on page 122.

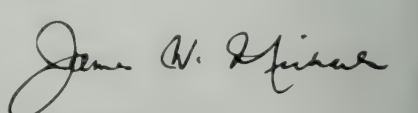
I'd like to single out Andrew Tanzer's report on Singapore. A half-century ago many of the inhabitants of this Asian island were coolies and rickshaw-pullers; their grandchildren enjoy a European-level living standard and inhabit one of the most technologically advanced cities on Earth. Tanzer tells how Singapore is showing the way for the rest of Asia (page 66).

Phyllis Berman has served readers well with timely exposés of rotten business management. A few years back she zapped Columbia/HCA Healthcare when it was still a darling of Wall Street. In 1998 she exposed weaknesses in Bankers Trust when investment analysts sang its praises; in November BT sought refuge in a merger with Germany's Deutsche Bank at a price 32% off from its high. Now Berman tackles Manpower's Mitchell Fromstein, whose eccentric and bumbling management has caused his company to blow its leadership in a fast-growth industry. Begins on page 83.

In the latest of our "Lunch with" series, Dyan Machan chats with Ralph Gomory, president of the Alfred P. Sloan Foundation. Tear this article out for future reference. Gomory reminds us: It isn't what you don't know that hurts you; it's what you do know that isn't true. (Page 96.)

An apology to contributor David Goldman (page 263). Last issue we misidentified his affiliation. We got it right this time. David is a global credit strategist at Credit Suisse First Boston.

As I move on to a new but related assignment at Forbes Inc., I thank you all for the subscription renewals that helped persuade management to give me such a long run.



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ALAN LEVENSON

Con artist Marcus Dalton

Busted.

The grifter cops a plea

THREE YEARS AGO FORBES exposed con man Marcus Dalton *(Sept. 11, 1995)*, who had spent almost two decades running securities telemarketing scams that bilked investors out of as much as $200 million. Fellow scammers and law enforcement authorities across the country picked up on our headline and dubbed Dalton "the grifter."

When he saw our story, says Assistant U.S. Attorney John J. Carney, "It lit a fire—there was no way the government was going to permit it."

Keeping his word, Carney got the goods on Dalton, who pled guilty in late December to conspiracy to commit racketeering.

Facing a possible life term, Dalton, 45, helped the government crack 14 telemarketing "boiler rooms" across the country where con artists hawked worthless stakes in schemes like wireless cable operations and television programming. After Dalton helped finger some of them, seven other defendants eventually pleaded guilty.

One of them, John A. Field, had once served as U.S. Attorney for the Southern District of West Virginia in the 1970s before becoming one of the lawyers for Dalton's scams.

In return for his cooperation, Dalton faces a lesser penalty of 20 years in jail and a quarter of a million dollars in fines. And he loses the money he made from his grifting.

–S.A.

FLASHBACKS

70 years ago in Forbes

January 1, 1929

[At] the 1905 Chicago automobile show, the most attractive exhibit of the whole show, a dazzlingly white car, captivated Walter Chrysler. The fact that he had only $700 in savings and that the cost of the car was $5,000 did not daunt him. He started out to raise the balance of $4,300. Those he approached regarded him as stark crazy. However, one banker, who realized that Chrysler was not bent on buying a costly toy . . . advanced the money. Instead of using the car to make a splash, Chrysler [took] it apart. Every nut and bolt and bearing was eagerly scrutinized and analyzed. That done, he began rebuilding it. He made himself so familiar with all the parts that he felt confident that when the time was ripe, he could build cars himself and even make not a few improvements in design and construction.

Twenty years later Chrysler took over Maxwell Motor Car Company and renamed it after himself.

30 years ago in Forbes

January 15, 1969

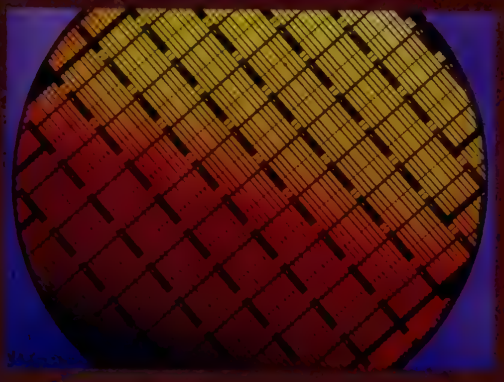
When Wall Street was overwhelmingly conservative, Gerald M. Loeb, a partner in E.F. Hutton & Co., was almost a radical. He argued against too much diversification ("Put all your eggs in one basket and watch the basket closely"); disbelieved in "buying good stocks and putting them away"; felt that bonds were a lousy investment and that speculation was a sounder approach. All this is commonplace today. But Loeb was preaching it in the Thirties, Forties and Fifties. . . . He's skeptical of today's market: "I've seen all these things before. . . . It's disturbing to me. I don't know what's going to ring the bell this time. But I'm not starting any new position in this market. I'm just not geared to buying stocks that are already popular in the hope that they'll get more popular."

10 years ago in Forbes

January 23, 1989

This land is my land . . . or is it? Deeds don't necessarily prove ownership to land: Over the years common law and state statutes have held that who actually uses a piece of land can be as important—if not more important than—who a property deed says is the legal owner. That holding, which is known as the law of adverse possession, decrees that if the owner of record ceases to use land and someone else seizes the opportunity to take over possession, and uses it long enough, the court can shift title to the encroacher.

–Edited by Dolores Lataniotis



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Hunter or hunted?

LAST SPRING FORBES wrote that Ocean Energy, Inc., an independent oil and gas producer in Houston, was again acquiring oil properties on the cheap—the way it did when it started out in the mid-1980s in another period of low oil prices *(May 4, 1998)*.

This time, though, Ocean Energy's timing wasn't so good. The relentless oil price slide has eaten away at Ocean Energy's cash flow and net worth. Its stock, once as high as $30, fell to $7 in late November and the company cut way back on drilling.

Chief Executive Officer James Flores is trying to merge his way out of trouble by joining up with Seagull Energy Corporation, another weakened Houston oil company, but one with a healthier balance sheet. The companies say layoffs alone will generate $35 million in annual savings.

Although the Ocean Energy name will remain and its shareholders will hold 62% of the merged company's stock, Flores will be number two to Seagull Chief Executive Officer James Hackett.

–WILLIAM P. BARRETT

Tarnished investment

WHEN FORBES LOOKED AT the price of silver seven months ago *(June 1, 1998)*, we concluded that at $6.24 an ounce it had nowhere to go but up. Worldwide demand was outstripping supply by some 200 million ounces a year. Straw in the wind: Berkshire Hathaway had accumulated a 130-million-ounce hoard.

Silver unfortunately hasn't obliged us. Silver prices tumbled over the summer, and are now around $5. Warren Buffett? Unconfirmed reports have had him unloading, but Berkshire won't comment.

While demand for silver still outstrips new supply from the mines, there is plenty available, and industries that use silver—photographic supplies for example—are slumping. The price isn't likely to improve while much of the world is in recession.

–PETER KAFKA

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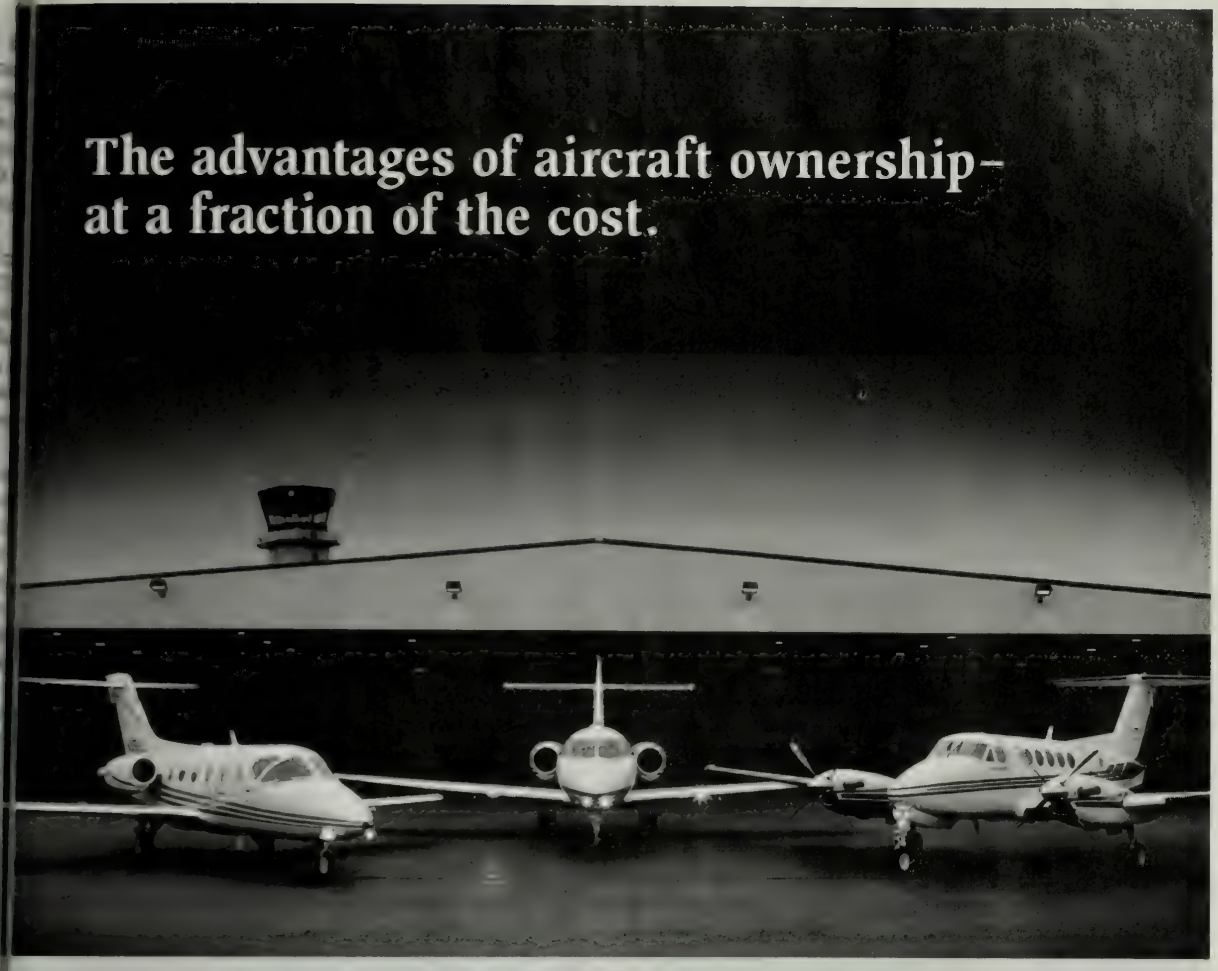

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The negotiators

By Josephine Lee

These ten executives and attorneys share their wisdom about the delicate art of negotiating.

"When the chairman of the seller walked into the boardroom, we all noticed that he had no shoes on. . . ."

Lawrence A. Larose, partner, Cadwalader, Wickersham & Taft

Michelangelo Volpi
Vice President of Business Development
Cisco Systems, Inc.
We are basically buying one company a month. We are trying to build acquisitions into a process by removing a lot of flexibility out of the deals.

Not being flexible does not mean saying, "No, no, no." It simply means saying: "Our terms were good enough for 30 other people [whose companies we bought]. Why is it that they are not good enough for you?" In most cases nobody can argue with that question.

You have to be able to draw the line and hold your guns. In the past we told the entrepreneurs whose companies we bought that we weren't flexible. These people are now our coworkers, so we have to continue to be true to that word.

Mark Achler
former President
Kinesoft Development
We wanted to negotiate with Microsoft from a position of strength. So we created technology that bridged the Windows 95 operating system to Sega and Nintendo game platforms. The technology filled a big hole because without it you couldn't play complicated games on Windows 95 very well.

Then we got Intel, Sega and IBM interested in making an investment in us. As we were negotiating with IBM we got a phone call from a partner of Microsoft saying, "Bill Gates says we have to do business with you. Don't do the deal [with IBM]."

Robert Kindler
Partner
Cravath, Swaine & Moore
Very often when you are negotiating, each party makes the exact same points over and over. And every time they bring up a certain point they precede it with the same long speech about why they are right. So in a couple of deals I made up code cards for particular points. Then I told everyone that in lieu of making their points, they can just hold up a card.

Almost immediately they stopped making speeches and started negotiating the deal.

Thomas O. Hicks
Chairman and Chief Executive Officer
Hicks, Muse, Tate & Furst Inc.
For complex negotiations it's very helpful to get away from the telephones. So I've had a lot of negotiations in my cabana, which is a 3,500-square-foot building adjacent to my home in Dallas. It has a swimming pool and a recreation room with a pool table, all helpful when you need to take a break during negotiating.

I have an old-fashioned Dr Pepper vending machine from the 1950s there, stocked with the small bottles of old-fashioned Dr Pepper. I got it from the first LBO I did back in the 1980s, and it's brought me luck in negotiating.

Keith Rosenbaum
Partner
Berger, Kahn, Shafton, Moss, Figler, Simon & Gladstone
Once when we were negotiating to buy a business, we found that the owner was going

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through a nasty divorce. We were on good terms with the wife's attorney and we learned the seller's net worth. California is a community property law state, so we knew he had to pay her half of everything. We knew his time frame. We knew what he was willing to part with and what he was not.

We knew a lot more about him than he would have wanted us to know. We were able to twist him a little bit, and get a better price.

Jacqueline G. Peterson
President and Chief Executive Officer
Eldercare 2000, Inc.
Sometimes you need to sweeten the deal to get it done.

I really wanted Burger King to locate in my development project, Clyburn Village, Denver, Colo. Burger King is a AAA tenant and was important in attracting other tenants.

But Burger King is very specific about its locations. You have to have a car traffic flow of at least 100,000 cars a day. Our area has only a flow of 40,000 cars a day. Burger King wants to be close to a highway. We are ten minutes away from the highway.

Still, I managed to bring them in, because I made them an offer they couldn't refuse. I told Burger King that I would reduce their cost by owning the building and the land.

"We knew a lot more about him than he wanted . . . and were able to twist him a little bit"

Keith Rosenbaum, partner, Berger, Kahn, Shafton, Moss, Figler, Simon & Gladstone.

David M. Bernstein
President
Schottenstein/Bernstein Capital Group
(asset recovery and retail advisory service)
When I negotiate I always bring someone else with me. The person at the other side of the table might just not click with me. I might remind him of a friend or a father that he does not like. In that case, I can shift the negotiations over to someone else, who may be more likable than me, and make a successful deal.

Lawrence A. Larose
M/A Partner
Cadwalader, Wickersham & Taft
The most amusing posturing I've ever seen took place when I was representing a U.K. company buying a subsidiary of a U.S. company. The first meeting of the chief executive officers occurred in New York, in the boardroom of the seller.

When the chairman of the seller walked in, we all noticed that he had no shoes on, but nobody said anything. About half an hour into the meeting the door opens, and a butler wearing white gloves comes in. He is carrying a silver tray with the most perfectly polished pair of shoes you've ever seen. In midsentence the chairman of the U.S. company stuck out his feet, and the the butler got down on the floor and put on his shoes for him.

It was his idea of sending the signal as to who runs the show. But at the end of the day our British client was satisfied with the terms of the deal. The seller's posturing was more amusing than effective.

Victor H. Palmieri
Chairman
AlixPalmieri Associates
(turnaround firm)
Don't let anybody take you by surprise.

That happened to me when I was negotiating the restructuring of Penn Central with its creditor banks in 1978. Walter Wriston represented Citibank as chairman. We had all the terms nailed down when I presented a "what-if" scenario. I said, "Now wait a minute. What if the banks in fact don't come up with the new money that is required here?"

And from the other end of this huge, long table came Walter Wriston's voice. "Mr. Palmieri, you can't make history in the subjunctive." There was a stunned silence and everybody tried to figure what the heck he was talking about.

I later found out that the statement had no meaning. He was just trying to throw me off guard. I should have asked what he meant right away, but he took me by surprise.

I was a lot younger then.

Craig A. Winn
Chairman and Chief Executive Officer
Value America
Look for partners out of the box. An Internet company doesn't always have to go to AOL or Excite to form partnerships. You can get a better deal if you try to form a partnership with a party that really needs what you have to offer.

So we approached a labor union because we figured that since some people view labor as dated, it really needed to be associated with cutting-edge technology. The union people agreed that investing in an Internet company gave them an opportunity to shed the image of being part of the past and pick up the image of being in tune with the future. The American Labor Movement invested $40 million in Value America. ■

What's on your mind? Tell the world. Go to our new On My Mind forum in the Forbes Digital Tool at http://www.forbes.com/mind, or e-mail us at mind@forbes.com.

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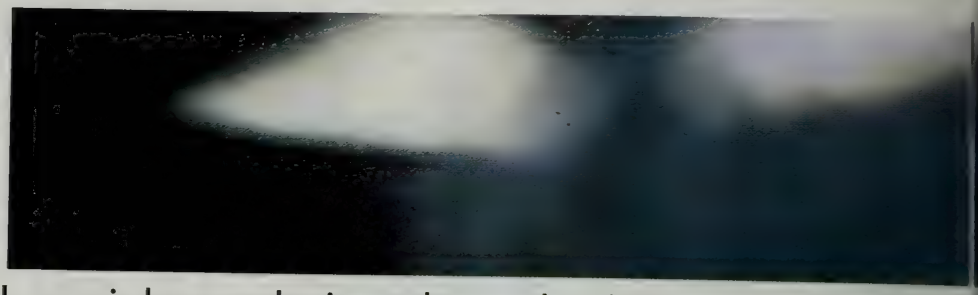

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Learning versus loot

SIR: Re "The tyranny of the diploma" *(Dec. 28, 1998, p. 104)*. Is the point of higher education only to help graduates earn more? A college diploma may not dramatically impact future earnings, but that doesn't mean it's unnecessary. Anecdotes about a few individuals who became wealthy without college will not change my conviction that higher education is worthwhile.
–SHANNON HORN
LaVergne, Tenn.

RICHARD T. GRAULTY/MATRIX

Entrepreneur John Magennis, 17
No degree? No problem.

SIR: One point your excellent story might also have made is the truth of the adage "A college education is probably the only thing we're willing to pay for and not get."
–EDWARD G. KORAN
Phoenix, Ariz.

Why pay more?

SIR: Re "The hustling of X-rated shelters" *(Dec. 14, 1998, p. 198)*. You offer a distorted view of tax consulting. Companies in a global market must navigate the maze of U.S. tax rules and those of foreign countries. A corporation that pays more taxes than required by law would not serve the interests of its workers, shareholders or customers. That is why clients expect us to formulate effective tax strategies. The ones we offer meet the test of all current tax laws. You might recall a quote from U.S. Circuit Judge Learned Hand: "Over and over again courts have said there is nothing sinister in so arranging one's affairs as to keep taxes as low as possible. Everybody does so, rich or poor; and all do right, for nobody owes any public duty to pay more than the law demands."
–SAMUEL A. DIPIAZZA JR.
Managing Partner, Tax Services
PricewaterhouseCoopers
New York, N.Y.

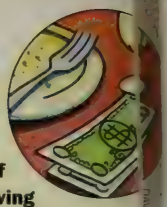
Economics 101

SIR: Re "Why do you leave tips?" *(Dec. 14, 1998, p. 138)*. Your article shows remarkably little understanding of how the world works when it comes to money. At the very least, a good tip is a demonstration of both gratitude and abundance. The "Golden Rule" comes to mind. So does the injunction, "Whatsoever a man soweth, that shall he also reap."
–KIRK CORNWELL
Albany, N.Y.

Sears couture?

SIR: Re "The measure of a man" *(Dec. 14, 1998, p. 290)*. Your historical research comes up short. You say the French were the first to make made-to-measure suits, in the 1980s, but from the late 1950s through the 1960s I got several made-to-measure suits at the Sears, Roebuck store in Salem, Ore. A competent salesman or the alterations man would make all the measurements. You were then photographed and asked to choose fabric and styles; the suits were ready in about three weeks.
–JAMES I. ELLIOTT
Eugene, Ore.

Tip now or pay later



SIR: Re "Why do you leave tips?" *(Dec. 14, p. 138)*. For most of us the inconvenience of tipping is well worth the convenience of having someone willing to bring the food, carry the load, take us where we want to go, and fix our hair just the way we like it. If and when the IRS manages to eliminate tipping, you may find yourself paying substantially more for these services or doing more of them yourself.

I hope you enjoy self-serve restaurants, carrying your luggage and driving around in unfamiliar cities.
–SUSAN MICHIE
Stillwater, Okla.

Misplaced moose

SIR: Re "The last tourist at the end of the earth" *(Dec. 14, 1998, p. 294)*. The accompanying photograph was most certainly not taken at Deadhorse, Alaska. There are probably no moose that far north, and there certainly aren't any trees, as the far north slope is actually north of the timberline.
–LARRY HAMILTON
Buffalo Creek, Colo.

You're right. We mistakenly used a photograph taken approximately 350 miles south of Deadhorse. –ED.

Foul!

SIR: Re "Selective accounting" *(Dec. 14, 1998, p. 124)*. What is wrong with this picture? An NBA player playing for the minimum made more than a third of the NBA teams, which lost money. A single player, Michael Jordan, made more than the Portland Trail Blazers, the most profitable team. And teams averaged $6.6 million in profits, which is less than the combined salaries of an average team's starting five players.
–ERIC ANDERSON
Loma Linda, Calif.

HARRY WALKER

Near the Yukon River
Not the end of the world.

Right man, wrong group

We misidentified Daniel Yankelovich in "The church versus the mall" *(Nov. 16, 1998, p. 194)*. Mr. Yankelovich is chairman of DYG Inc. and president of the Public Agenda. He is not associated with Yankelovich Partners.

Letters should include the author's address and phone number.

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Fact and Comment

By Steve Forbes, *Editor-in-Chief*

VINDICATING—AND UNDERGIRDING—THE CONSTITUTION

DESPITE IMPRESSIVE POPULARITY in the polls, despite dazzling midterm election successes for his party, despite an incredible capacity for appealingly framing an issue or for emotionally, plausibly defending himself against embarrassing issues or revelations, President Clinton was impeached by the House of Representatives. The Rule of Law triumphed. The Founders would be gratified with this evidence that we are indeed a government of laws, not men.

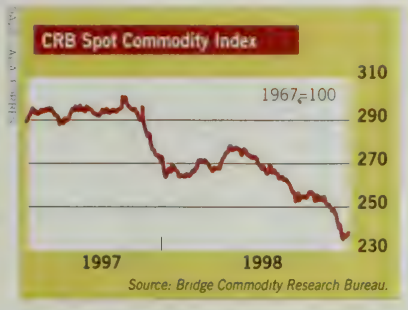
The President lied under oath, tampered with witnesses and obstructed justice. His party never disputed the charges, only the gravity of the events behind them. The House action will powerfully deter offenses against our system of justice by future Presidents and will prevent a cancerous undermining of the Rule of Law.

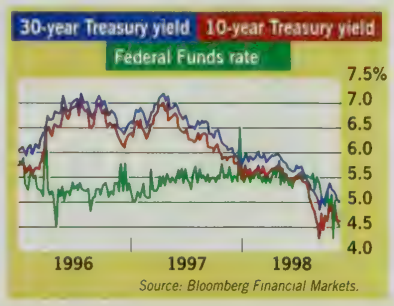
MAN OF THE YEAR

Henry J. Hyde

WHAT ARE THEY DOING?

THE WORD "CHALLENGE" is often a euphemism for a problem. And the new year will be challenging. Incredibly, little progress has been made clearing away problems evident more than 12 months ago. Despite three baby-step interest rate cuts, the Federal Reserve is as deflationary as ever. Crop and livestock prices have dropped even further, along with other commodities such as oil. The Exxon/Mobil merger is the big headline-grabbing response to deflation's gradually growing bite. Short-term and long-term interest rates are virtually on the same level—another disturbing symptom. The White House continues to oppose a substantial, incentive-oriented tax cut.





The broad-based plunge in commodities is a flashing red light. Another: the narrowing gap between short- and long-term interest rates.

The Pacific Rim has supposedly bottomed out. But what a bottom—starvation in Indonesia, economic depression in South Korea, currency controls and confusion in Malaysia, etc. Recovery will be very slow. Our trade numbers will continue to deteriorate, fanning protectionist pressures. Amazingly, the International Monetary Fund, whose malpractice has devastated much of the world, got more money out of the U.S. Where are those trial lawyers when you really need them?

China still hasn't fully come to grips with moneylosing government companies whose endless appetite for cash threatens the country's financial system. Japan looks as if it is finally coming to grips with its banking crisis but, as usual, it is too little, too late. And Western Europe's subpar growth is jeopardized by the new German government's addiction to ever higher taxes. The euro, moreover, is no substitute for substantial tax and structural reform.

Troubles arising from the so-called Millennium Bug (chips and programs that think 00 is 1900, not 2000) will surface as companies and governments shift to fiscal year 2000. The depredations of trial lawyers looking to get in on the action will be fueled by outrageous fees from those tobacco settlements. Our Founders would be astonished to find that massive, de facto tax increases can be enacted on an industry and its customers without legislative approval.

Genuine Social Security reform will languish despite all the Washington blather. And the White House will ready a new assault on independent health care in the name of protecting patients. Stocks will be under pressure, and, once again, most will end up the year lower. Interest rates, particularly on the short-term side, will go down fur-

ther. Consumers will effectively increase incomes by refinancing mortgages. But that won't be enough to keep us from experiencing an increasingly weak economy.

Yes, U.S. fundamentals remain powerfully strong. But the White House seems determined to undermine them like termites nibbling at a mighty structure.

IDEAL EDITOR

THIS ISSUE OF FORBES marks an extraordinary milestone: It is the last one to be edited by James W. Michaels. Jim joined Forbes in 1954, became managing editor in 1957 and editor in 1961. Now, 1,000 issues later, he goes to work for us as Group VP/ Editorial to accelerate our expansion into books, newsletters, TV and other projects.

It's no exaggeration to say that Jim virtually created American business journalism. When Jim started here, FORBES was, to put it charitably, a second-tier publication. Business journalism itself was a backwater. Today business and economics are routinely front-page stuff. Under Jim, FORBES has become one of this country's premier publications, as well as the most influential in its field.

ROB KINMONTH

SF and JWM: Imperfect pupil learned much from this tough, truly talented teacher.

When my father took the helm in 1964, he immersed himself in all facets of FORBES. The one exception to his microscopic management was the editorial department. With conviction, my father told me, "Jim Michaels is a genius. I trust him."

Jim is an amazing combination of integrity, tenacity, energy, courage, curiosity, brains and shrewd judgment. He made this magazine the drama critic of business, routinely praising or panning corporate management. Our writers learn to look beneath the surface of things, to find what others are missing. Our stories have conclusions, none of this on-the-one-hand—on-the-other-hand handwringing. Each article, ideally, should be something of a morality tale from which the reader comes away thinking there is a useful lesson. Jim gave the magazine its consistent, conversational tone. His judgments are penetrating. He can praise as quickly as he can criticize. And, although a hardened skeptic, he is fueled by a genuine optimism.

Jim never fell, as do so many, into a lazy rut. More than once, in my early years here, I saw Michaels erupt like a volcano when he thought the staff was getting complacent or had fallen into a dull routine. He hammered home the need for brevity, something every writer (including this one) needs to relearn constantly. Jim recognized that our audience is uniquely made up of people who are usually short on time. I remember Jim's comment when I handed him my first piece: "Some nice points, but you can make 'em at half the length." I cut the story in half—and then he cut it some more. I traveled with Jim in the early 1980s to Australia. He wrote a piece on our findings and handed it to me, saying, "Tell me if I've left out anything important and where I can cut." I thought, "Me, a junior reporter, editing a legendary editor!" Michaels read my mind: "Everyone needs editing."

Jim has been a constant innovator, never needing focus groups or surveys to determine what to put on these pages. He pioneered the grading of mutual funds. He recognized decades ago the way executives can manipulate numbers and accounting rules. (Even today reported earnings are often taken at face value.) Jim saw the importance of institutional money managers before other publications did. He pushed us into international coverage and launched numerous sections. He turned lists such as the FORBES 400, the Top 40 Entertainers and the 200 Best Small Companies in America into staples. He would never let a story run if he had seen it elsewhere, admonishing us, "Tell me something I don't know."

Although an immensely strong leader, Michaels believes in a bottom-up approach to generating ideas and writing stories. Every cycle you are expected to come up with ideas that can pass muster with your peers and the editors. You learn quickly not to come in with half-baked or no-baked proposals. But that's what attracts capable writers: Get an idea accepted, and you have the opportunity to execute it. Jim hates pack journalism, because it encourages laziness and dulls critical faculties.

William Baldwin, a 19-year veteran, is succeeding Jim. Bill is a first-rate editor with an enormous capacity for taking on increased responsibility. He has demonstrated a real knack for innovation and creativity. Our annual, always fresh, Investment Guide, for instance, is Bill's creation. Thorough reporting, brevity, originality and solid, unambiguous conclusions will remain FORBES characteristics.

CHRIS CASSIDY

Bill Baldwin: Apt apprentice becomes master editor.

Jim will bring that same spirit to his new endeavors. We are making these changes because we believe we can give true added value. But there is more at stake: survival. Technology is breaking down traditional barriers between different mediums. Freshness and success in these other areas are vital for the continued growth and health of this magazine. Jim will be a pacesetting pioneer with these ventures, just as he has been with FORBES itself.

On page 116 you will find a history of the Michaels era. We also have a video tribute to Jim, which is full of the insights, humor and edginess that characterized his reign at the magazine. You can see it on forbes.com/michaels, and if you would like a copy, gratis, just call 212-206-5100. After viewing it, you will share our conclusion that Jim Michaels is one of the finest American editors of this century. ■

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Audi

Other Comments

No Trifling Matter

[BILL CLINTON'S] DALLIANCE with Monica was irresponsible, but of no important consequence until the lying began. Playing with death-dealing weapons and the lives of American soldiers is another matter entirely. Irresponsibility here carries a cost.

It is precisely because attacks on Iraq and terrorists are justified that they should not be clouded by perceptions that the American President is less interested in the global consequences than in taking any action that will enable him to hold on to power. It is in fact a further demonstration that he has dangerously compromised himself in conducting the nation's affairs, and should be impeached, sooner rather than later.
–*Wall Street Journal*

Most Taxing Tax

INFLATION is the most pervasive economy-wide tax. Declining inflation is a huge economy-wide tax cut, stimulating real capital investment returns, real wages and real incomes. Growth does not cause inflation. Low inflation causes growth.
–LAWRENCE A. KUDLOW,
American Abundance

Weird Science

DID YOU HEAR the one about the scientist who got people to watch the film *Who's Afraid of Virginia Woolf?* while he told them ethnic and sexual jokes? No? Well, you must not keep up with grants awarded by the National Science Foundation. The NSF gave that professor $107,000 of tax money to conduct that experiment. Maybe it could pay a researcher to find out why the government funds such wacky experiments.
–CHARLES OLIVER, *Reason*

The President's dog, Buddy, bit the hand of a Marine Corps helicopter pilot. The White House—seriously—blamed the hand.
–*National Review*

Crime Report

BETWEEN LAWMEN AND REPORTERS on the whole it is impossible not to notice this difference: Most lawmen seem to hate criminals, and most reporters couldn't care less.
–DAVID GELERNTER, *Drawing Life*

Bittersweet

NEVER MIND that the [euro] will be used only for paperless transactions until 2002. Finnish money makers have already started minting euros. Workers are already deserting the markka and asking to be paid in the new currency. Some stores are posting prices in it. At least one political party has published its budget in euros.

It isn't the promise of European economic and monetary union that has them abuzz. What moves them is that the euro is a chance to make an even firmer break with Russia. Sure, Finns are pleased about not having to change money before traveling to Italy. But the real allure for Finland is cementing itself to the West.

But for all the monetary madness in Finland, a few Finns are grieving for the passing of the markka. "I had a moment of sorrow talking to my 7-year-old daughter," says Suvi-Anne Siimes, Finland's minister of culture. "She said, 'Mommy, when I am 12 years old, I'll have euros in my purse.' I realized that her life will be different from mine."
–HELENE COOPER,
Wall Street Journal Europe

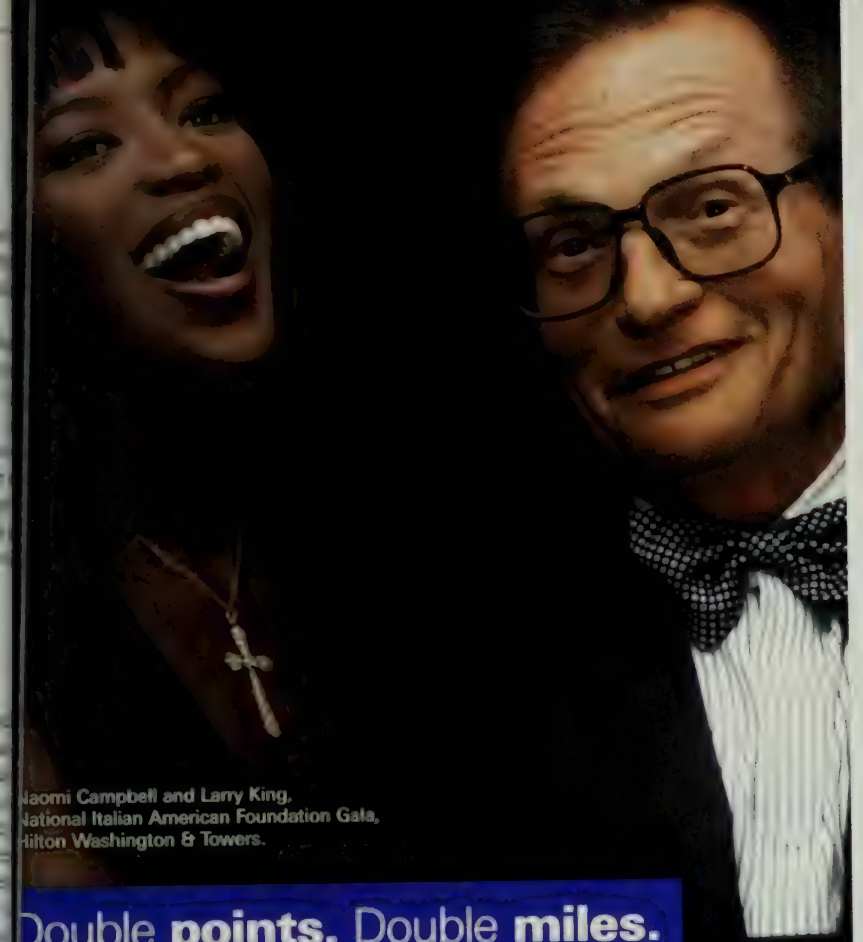
King's Ransom

MANY FEATURES of monarchies gained a life of their own even after monarchies were abolished or at least diminished to ceremonial status. Taxation is one such institution. It should eventually be replaced with a system of fees for service rendered. In the U.S. there is implicit awareness of this when it is argued that ultimately taxes are paid voluntarily. It is a fiction, but one required by the logic of the inalienability of individual rights to life, liberty and the pursuit of happiness (or property).
–TIBOR R. MACHAN, research fellow, Hoover Institution, *Valley Morning Star* (Harlingen, Tex.)

Catch of the Day

WHEN MACKEREL are fine, fat and plentiful, there is no better fish to be bought for the price. They are not only beautiful to look at but are one of the oily fish meant to be so good for you. They must be spanking fresh. I [Jennifer] remember once in Ullapool [Scotland], with its fishing harbour and boats all lined up, that it was impossible to buy a fish in the shops, such is the waywardness of bureaucracy, but you could sometimes gather them when they were dropped by a passing seagull. Slightly damaged maybe, but the fish couldn't be fresher—they were delicious beyond compare.
–*Two Fat Ladies: Gastronomic Adventures*, by JENNIFER PATERSON & CLARISSA DICKSON WRIGHT

"My client would like to do his community service in the financial community."



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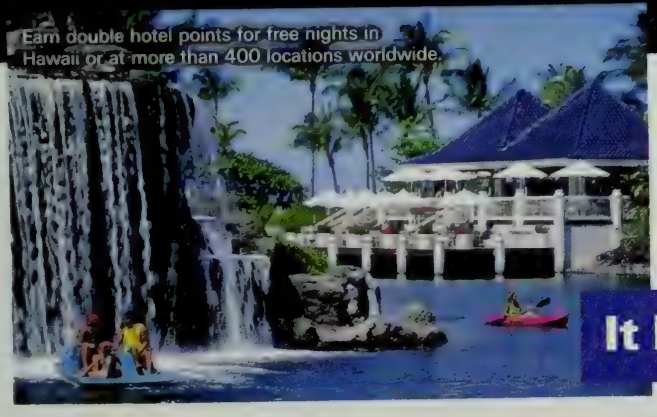

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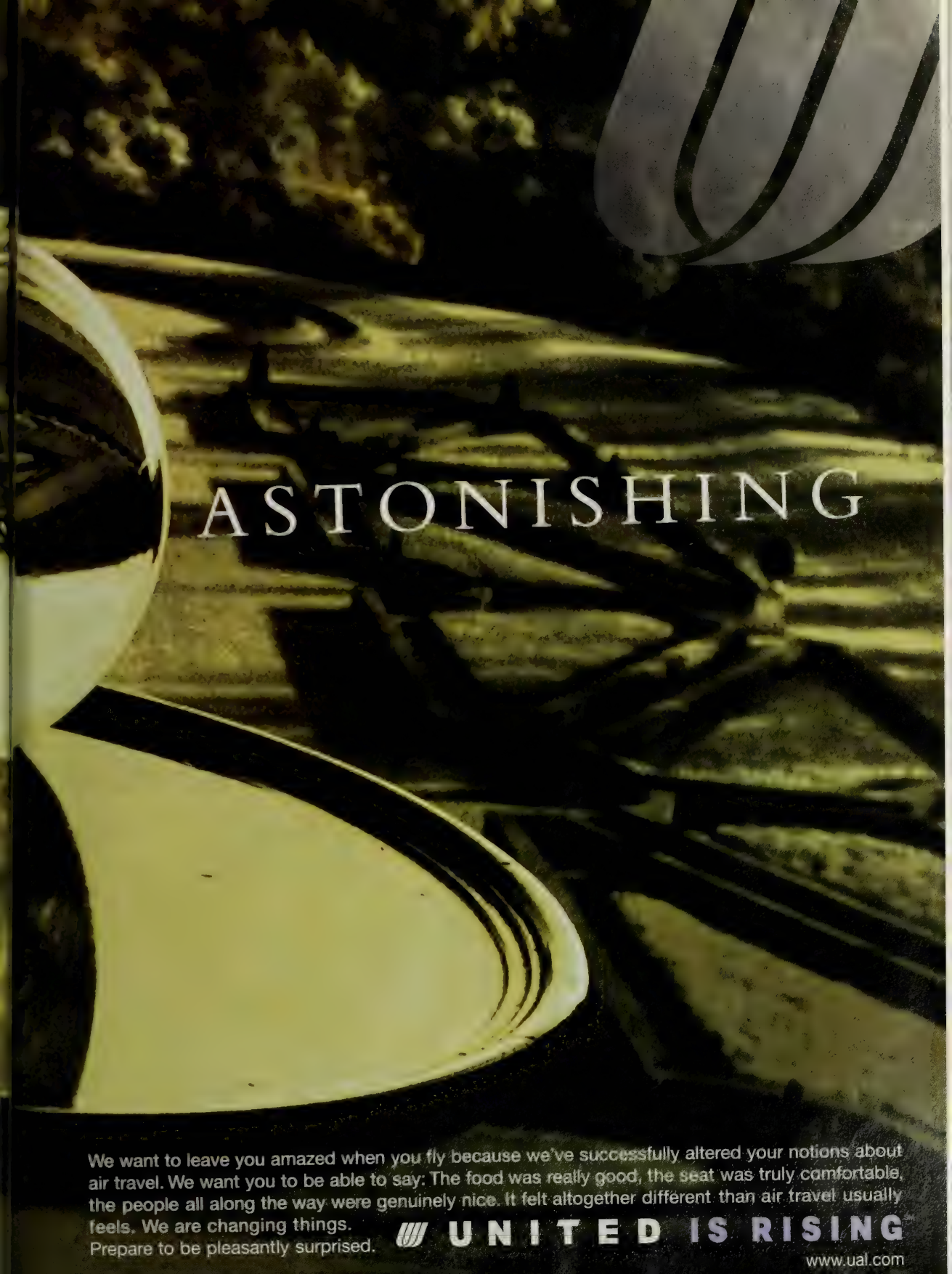

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POUR SOMETHING PRICELESS

Commentary

on events at home and abroad

By Caspar W. Weinberger, *Chairman*

ENGLAND AND EUROPE AT THE NEW YEAR

THOUGHTS ON ENGLAND AND EUROPE, as we begin the new year—the last year before the new currency, the euro, is introduced and the way is paved for the new Europe that many hope—and more fear—will change things forever.

The British have no desire to join the monetary union and give up the pound sterling. They still have a deep suspicion of and opposition to Brussels, the seat of the European Union (EU). Tony Blair's Labour government, however, has been trying to drum up support for joining. But when reports surfaced that Germany's new Social Democratic government was pushing for the EU to be able to levy taxes by majority vote rather than by the rule of unanimity, the British press erupted. Mr. Blair's people said these were only rumors, but unanimity on taxes is a near impossibility in an entity as large as the EU is expected to become. It is safe to say that were a plebiscite to be held now, the U.K. would overwhelmingly reject monetary union.

Most Europeans who were strongly, bitterly opposed to monetary union—even while their governments were adopting the new currency—have since become apathetic. Although doubts remain as to how this is all going to work, the euro has been printed, minted and prepared for issuance in 2002.

The Maastricht treaty specified that participating countries must reduce budget deficits to no more than 3% of GDP. This and other policies were put in place to convince Germany that the euro would be a strong, stable currency, one worthy of replacing the deutsche mark. It will be interesting to see if countries such as France, Italy, Spain and Portugal can maintain such rigid fiscal policies or whether they will go back to big deficits and vast social spending programs. If they return to past policies, the euro will be as weak as the Italian lira or the French franc.

The real worry for the U.S. is that the push among European governments to be "ever closer" will lead to the forming of common defense, foreign and fiscal policies and, ultimately, to a single, new sovereignty. This entity would more than likely follow the left-leaning socialist policies of Jacques Delors, the French socialist who ran the EU's European Commission for many years.

Mr. Clinton's policy has been to look benignly on, oblivious to the fact that there is no guarantee a single European sovereignty would be as strong a friend of ours as have been most NATO countries.

Germany's new coalition government of the Social Democratic Party and the environmentalist Greens has been slow to change many of Helmut Kohl's policies. But the choice of the Greens' leader, Joschka Fischer, as foreign minister may presage some immediate changes. Mr. Fischer is noted for his less-than-warm speeches about NATO and Germany's role in it. He has tried to be reassuring about this now that he is the foreign minister, but, at the same time, he is trying to upset NATO's nuclear strategy. NATO has always rightly refused to abjure the possibility of using nuclear weapons first. Predictably, France, as soon as it was sure that even the Clinton Administration opposed any change in this policy, began to make encouraging noises for Mr. Fischer's point of view.

We Must Reset Our Moral Compass

The new year has always been a time for optimism—even eager anticipation. But at this particular time, America needs hope. This could and should be the year in which we learn that there are more important activities for our government than simply presiding over our economic growth. The fact that we even sent our troops into harm's way just before an impeachment debate began, only to withdraw them minutes after the impeachment vote ended—with the armed forces' job less than half done and Saddam Hussein still claiming victory—shows that we need, now more than ever, to reset our moral compass. Our policies must be guided by something other than a perceived domestic political advantage. If our government and its leader are not willing or able, as George Washington said, to "raise a standard to which the wise and the honest can repair," no one else can.

America urgently, desperately needs leaders of whom we can again be proud and who can, by their leadership, serve as models for children to emulate and revere. This may sound impossibly old-fashioned, but that would be far better for us and the world than the tawdry international joke we have become.

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Digital rules

Technology and the new economy

By Rich Karlgaard, *Publisher*
publisher@forbes.com

JUST DO IT

I'VE ALWAYS STRUGGLED with the idea of New Year's resolutions. Then I discovered you could write them for other people—and what a hoot!

■ Jack Smith, chairman of General Motors:

Think outside the box. Here's a radical idea, free of charge. (If you don't like it, blame my pal Herb Allison, president and COO of Merrill Lynch.) It starts with a painful premise: Rich baby boomers are not buying GM cars. Nor will this trend be easily reversed. Great cars, sweetly priced, won't immediately get boomer juices flowing; boomers don't warm to the GM brand.

The trick is to work *with* boomer biases. Put a boomer under your microscope. Plunge into his soul, and you'll never touch the bottom of his narcissism. When your typical boomer left his Spock-trained mother's breast in the 1950s, that was the start of a lifelong quest for meaningful experience. So sing his tune. Play into his dreams. Make each boomer customer feel—anointed! For a $695 monthly lease, offer a combination of cars, each tailored for each lessee and his personal boomer whims: a Cadillac Seville STS for weekday commutes to the office (so he'll feel big), a Cadillac Escalade SUV for weekends in the winter (macho), and a hot, felony-red convertible Chevy Corvette (the rising sap of youth) for summer getaways. Throw in 50 hours of annual door-to-door Caddy DeVille limo service (for nights when he prefers to unlock the shackles of accountability), and you just may do the deal.

Use the Web to coordinate the logistics. For little cost, you can make a market of dreamy boomers with $695 a month to drop and the desire to have it all. That's what the Web is for—custom service at low transaction costs. This plan is also how you could turn GM's impossibly broad lineup of cars into an unmatchable asset.

■ Michael Eisner, chairman and CEO of Walt Disney:

Buy Apple Computer, and tell your board that the brilliant Steve Jobs is your successor.

■ Steve Jobs, chairman of Pixar Studios, chairman and interim chief executive officer of Apple Computer:

Steve, take Eisner's offer. Technology, entertainment, the chance to shape global popular culture for the next 40 years—insanely great! You've trained your whole life for this! But first call my wife and tell her why you've made it so blasted hard to transfer old files to her new iMac.

■ Tom Wolfe, writer:

MORE! MORE! MORE!

■ George Soros, hedge fund manager and weekend author:

Less! Less! Less! If the unstated goal of your book authoring is to absolve guilt and make yourself feel better, we recommend praying, tithing and two tablets (300 mg each) of St. John's Wort, four times a day, with a glass of warm milk.

■ Arthur Levitt, chairman, Securities & Exchange Commission:

As you're hosing down the stables of capitalism, take care not to drown the golden calf. Your chief accountant, Lynn Carter, has got a crazy bug in his wig that large companies that eat little ones are expensing way too much "in-process R&D" as they burp off the costs of acquisitions. He denounces technology companies, in particular, for this sordid practice. Carter is out of step. Expensing is a proper thing, not a bad thing—especially now. Technical innovation lasts about as long as a fruit fly in today's Web ecology, which has become everyone's. It is ridiculous to force companies to amortize R&D for several years. Do the right thing for America—let dollars sprint from old assets to new ones at the speed of light.

■ Bill Gates, chairman and CEO of Microsoft:

Don't let the bozos get you down.

■ Jim Barksdale, CEO of Netscape:

Be kind to yourself in your Mississippi retirement years. You didn't lose to Microsoft. You created $4 billion in new wealth and indirectly launched a business revolution.

■ Jeff Bezos, founder, Amazon.com:

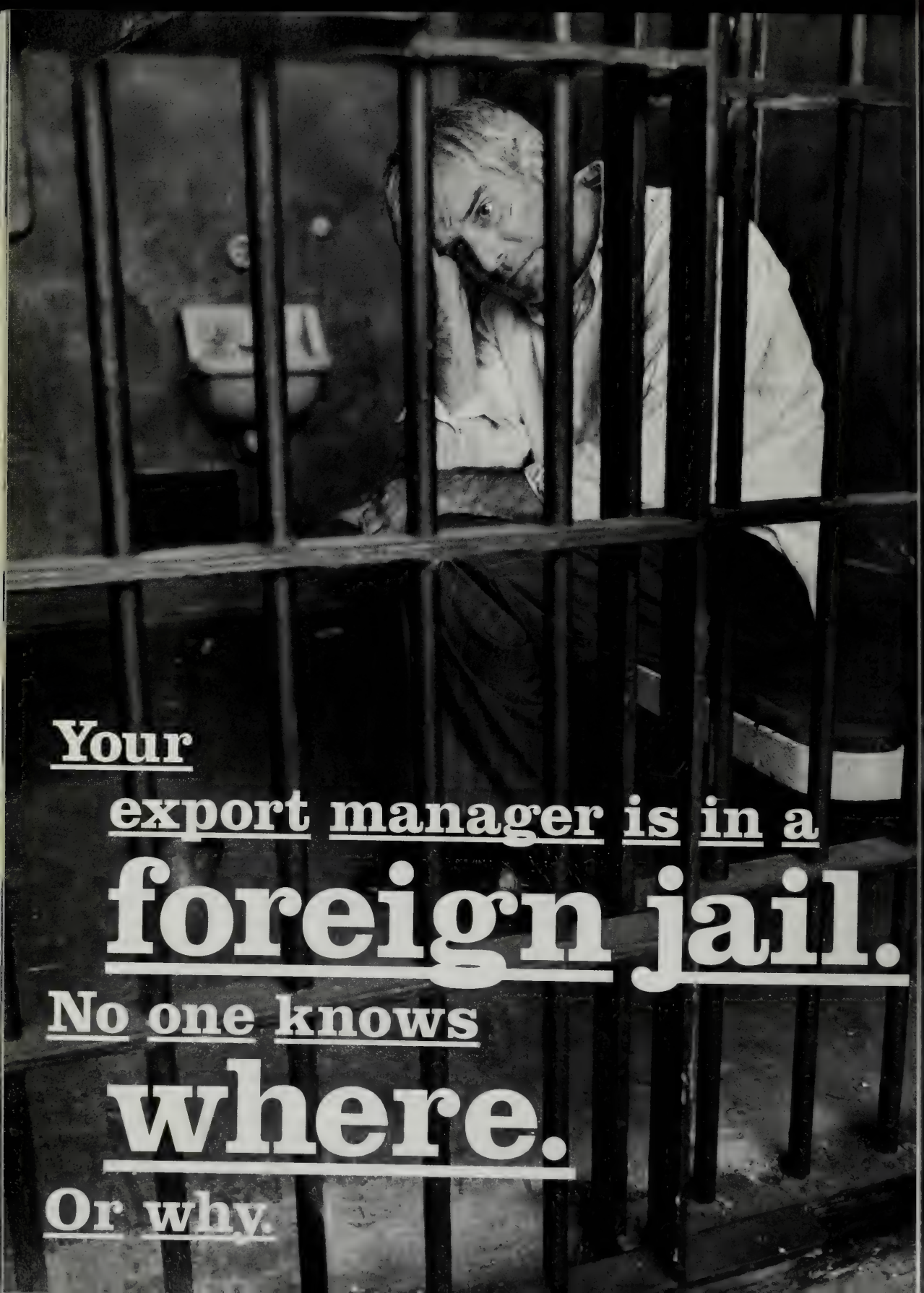
Do *something*, anything—go buy Boardwalk and Park Place with that $14 billion market-cap toy money of yours. The big boys are a-gunnin' for you. You'll need more assets than you now possess for the coming battles. Hire away Mike Volpi, the young M&A ace from Cisco.

■ Congressional Republicans:

Consult your doctors about spinal transplants. Then stand up in support of broad-based tax cuts and greater free trade.

■ Congressional Democrats:

Make our day! Lift the cap on payroll taxes. Give in to your deepest redistributionist desires and blow life into Barbara Boxer's plan to tax the inside capital gains on Joe Worker's 401(k) plan. That was a boffo idea in 1993; it's even better now, when the world is watching your plan to "save" Social Security. ■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ave the herbs

he fact that any plants re harvested or their roots neans killing he plant vhen it is iarvested.

THERE ARE TRADEOFFS for everything. Take herbal healing. Sure, it's a gentle, nonindustrial way to achieve health and tranquillity. But wait a minute—there's a catch. Pop too much St. John's wort to lift your mood and before you know it, there's no more St. John's wort left. So while you're worrying about saving dolphins and trees, add herbs like goldenseal and black cohosh to the exploited species in need of bumper-sticker assistance. Last year consumers spent an estimated $3.5 billion on herbal supplements, almost twice the amount as in 1994. St. John's wort isn't on the herbs-at-risk list as yet, but 19 other plants are—including American ginseng and echinacea; an additional 25 plant species are "to watch." So says United Plant Savers, a nonprofit group based in East Barre, Vt. dedicated to Saving the Herbs.

MARK MARCHO

The implacable laws of economics are already hard at work. Goldenseal, a root found only in North America, now costs $100 a pound, up from $15 a pound a decade ago. Worse, the fact that many medicinal plants are harvested for their roots means killing the plant entirely when it's harvested. "The press coverage of the herb craze doesn't seem to worry about where are all these plants going to come from," says Richard Liebmann, the executive director of United Plant Savers. Last year CITES, the Convention for International Trade of Endangered Species, put goldenseal on its list. Plant Savers took action and began appealing to companies to commit land to medicinal plant cultivation work. Plant Savers is also setting up its own sanctuary for research and cultivation on 400 acres in southeast Ohio. There's one sure way to halt the carnage, however. Just go back to using synthetic medicines made from good old chemicals in good old laboratories. Pop a pill, save a plant!

–B.P.

Out with the yellow, in with the blue

"As we approach the millennium, cool colors will enliven consumers."

HULTON GETTY

ANOTHER YEAR, ANOTHER COLOR. The 1,500 designers who make up Alexandria, Va.-based Color Marketing Group are predicting that 1999's predominant shade will be blue. That's a sharp contrast to the upbeat yellows and greens that reigned last year. It doesn't portend a mood of gloom, however. Rather, it sets a tone of soothing tranquillity and rebirth, say CMG's designers. "As we approach the millennium, cool colors will gain in prominence and will enliven the consumers' emotions with the feeling of being renewed," says Cochairman of Consumer Color Directions Christine Dickey. Judging from the figures we've seen on consumers' debt levels, it is their bank balances, not their emotions, that need renewal.

Never mind. CMG has already concocted the palette for the year ahead and sees yet more blue. New shades for the millennium will include Blue Moon, a watery kind of hue; Cancun Blue, a bright tropical tint; and Blue Planet, the color of the ocean as viewed from space. Even green and pink will show a lot of blue: Par Four Green will be a blue-green mix, while Pink for Sure will be a blue-and-pink concoction.

–B.P.

The Forbes/Bridge Economic Forecast Report

Edited by Shlomo Z. Reifman

THE U.S. ECONOMY	Actual last year	Actual latest	1998 est mean	1998 est high	1998 est low	4-wk % chg in mean
Automobile sales[1] (mil)	15.5	15.7* nov	15.1	15.9	12.0	0.3
Capacity utilization (%)	83.3	80.6 nov	81.7	82.5	81.0	0.0
New housing starts[2] (thou)	1,475	1,604* nov	1,557	1,610	1,450	1.0
Retail sales[3] ($bil)	1,941	2,019* nov	2,345	2,650	2,028	NA
Trade balance[4] ($bil)	–110.7	–158.8* oct	–201.4	–120.0	–251.0	–1.9
Unemployment rate[5] (%)	4.7	4.4 nov	4.6	5.0	4.2	0.2
Gross domestic product[6] (%)	3.9	3.9 3rd qtr	3.2	3.7	2.5	2.9
INFLATION						
CPI services (unadjusted) (%)	2.7	2.5 nov	2.6	3.1	2.2	–1.9
CPI total (unadjusted) (%)	1.7	1.5 nov	1.6	1.8	1.5	–3.7
INTEREST RATES						
30-year Treasury yield (%)	5.92	5.01	5.25	6.00	4.90	–1.9
3-month Treasury yield (%)	5.35	4.46	4.66	5.42	4.00	–1.3
PRICES						
CRB-Bridge spot indexes	271.81	228.66	240.00	270	210	–7.7
Gold per troy ounce ($)	288.80	291.20	280.33	290	255	–2.3
Oil/bbl W Texas Intermediate ($)	17.63	11.03	14.05	18	9	–13.2
CURRENCY						
German marks per dollar	1.80	1.67	1.67	1.85	1.18	–2.9
Yen per dollar	130	116	129	160	119	0.2

Estimates are contributed by leading economists, who are surveyed biweekly by Bridge Information Systems and Forbes magazine. Consensus forecasts as of 12/16/98.

FEDERAL FUNDS WATCH Next Federal Reserve meeting: Dec. 22, 1998

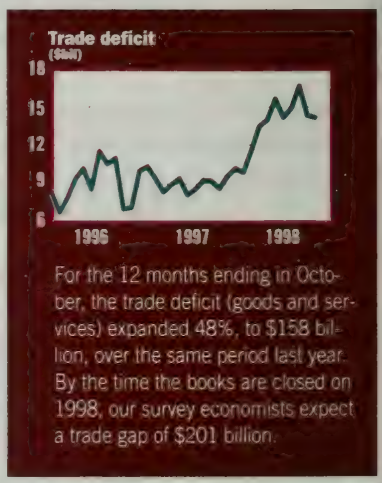
Current rate: 4.75% **Last action:** Nov. 17, 1998 –25 basis points

Likelihood of shift in interest rates in the next 90 days by the Federal Reserve

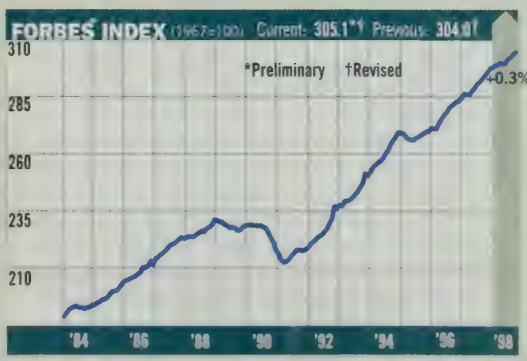
Very likely — Possibility of decrease or increase — Very unlikely

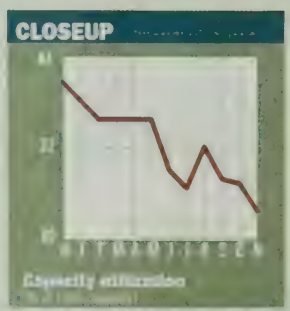
"Economists must recognize that the textbook model of vigorous economic growth followed by high inflation is wrong," says John Ryding, senior economist at Bear, Stearns. Ryding argues that rising labor productivity is dampening inflation pressure. He says that at the end of the last business expansion (third quarter of 1990) employee output per hour in nonfinancial corporations was up only 0.4% over the year-earlier period. In contrast, during 1998's third quarter productivity grew at a 2.8% clip. Ryding thinks that companies will not be forced to raise prices to maintain profits. His 1999 forecast: gross domestic product growth of 3% to 3.5% and just a 1.5% increase in the price deflator (the broadest measure of inflation).

SPECIAL FOCUS



For the 12 months ending in October, the trade deficit (goods and services) expanded 48%, to $158 billion, over the same period last year. By the time the books are closed on 1998, our survey economists expect a trade gap of $201 billion.





Current	Previous	Change
80.6%	81.2%	–0.6

The Forbes Index is a measure of U.S. economic activity composed of eight equally weighted elements: the cost of services relative to all consumer prices, the level of new orders for durable goods compared with manufacturers' inventories, total industrial production, new housing starts, personal income, new claims for unemployment compensation, total retail sales and total consumer installment credit.

Our Web site, www.forbes.com, has daily updates on economic estimates and detailed information on Forbes Index components.

*Twelve months. Autos, light and heavy trucks, including imports [1]Total single and multiple family, seasonally adjusted [2]Excluding auto sales, annualized and seasonally adjusted. [3]Total goods and services, annualized and seasonally adjusted [4]Percent of civilian labor force. [5]Quarter-to-quarter percent change, annualized. NA Not available. *Source: Bridge Information Systems Inc.*

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Empowering the Internet Generation™

RETAILING Discounting has a dowdy image but Target is making low-price shopping hip.

Mass with class

By Michelle Conlin

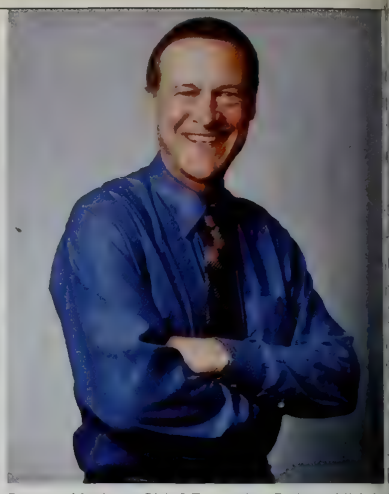
ON A RECENT *Late Night with Conan O'Brien*, actress Sarah Jessica Parker spent most of her time raving about a pair of frilly cotton pajamas she had just bought at Target for $12.99. The next morning it was high-fives all around at the $21 billion (sales) division of Minneapolis-based Dayton Hudson Corp.

Besides giving Target millions in free publicity, the incident showed the executives that their message was getting through: Target is a cool place to shop. Positioning itself between Wal-Mart and upmarket retailers like Banana Republic, Target caters to women in Range Rovers as well as those in Chevy Cavaliers. They want classy stuff at unclassy prices.

Twenty-two-year-old Shannon Smith, a college student in Lawrence, Kans., says she wouldn't be caught dead buying clothes in her local Wal-Mart or Kmart. But when it comes to her $20 mock leather jacket, she revels in revealing its origins. "Target's stylish and hip," says Smith. "Wal-Mart and Kmart. Those are grandma clothes."

This month Target, the country's third-largest discounter, will begin offering top-end Calphalon cookware and stylish appliances designed by architect Michael Graves. Target will charge 10% less for the Calphalon than you'd have to pay at Williams-Sonoma. Want a wool twin sweater set? Banana Republic asks $126; Target, $40 for a similar item.

Talk to Target President Kenneth Woodrow, a tall, patrician-looking Dayton Hudson lifer, and you'd think you were talking to a rival of Saks Fifth Avenue, not Sears. In an interview, Woodrow, 54, gushes terms like "panache," "color palette" and "the runways." The company hosts a yearly fashion show in New York, featuring its own discount-priced knockoffs of the hottest styles.



Dayton Hudson Chief Executive Robert Ulrich
The mastermind behind "Tarjay."

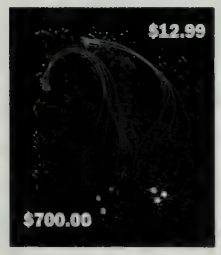
Style is the lure for Target "guests," as Target refers to its customers. They help burnish the hip image by calling Target's 851 stores in 41 states "Tarjay." The stores account for 75% of Dayton Hudson's $28 billion revenues and 75% of its $751 million earnings. The secret is in the soft goods. Clothes account for 25% of Wal-Mart's sales, but nearly 35% of Target's. "Target's obliterating the boundaries of traditional discounting and posing a serious threat to mall-based retailers," says Goldman, Sachs retail analyst George Strachan. The numbers tell the tale. While Target's same-store sales have been growing 5%, both Sears and JC Penney have been shrinking this year, Sears by 1.5% and Penney by 0.8%.

It helps that Target's parent also owns upscale department stores Dayton's, Hudson's and Marshall Field's. Its buyers swap information and figures with one another so that each gets insight into a slightly different but related market. Target would get snubbed at the lobby of the European fashion shows. But buyers for Dayton's chichi Oval Room, where it sells top designer lines, are always welcome. The Dayton's buyers share tips and vendors with Target, whose team of 20 trend watchers do their own combing of the globe for the next chic thing in places like St. Tropez.

Thus does Target ensure that its own private-label knockoffs are on the

Haute bargains

Can you spot the knockoff? Target lures the style-conscious with lower-priced copies of the hottest goods.



Neiman Marcus, Target

Target, Williams-Sonoma

STILL LIFE PHOTOGRAPHS BY DAVID HAMSLEY

Target's Merona cardigan sweater

Banana Republic's pricier version

elves at the same time the high-ced stuff arrives. Take the color gray. was all the rage last fall, touted on e pages of *Vogue* as the new black.

Target was right there with Mar-all Field's and Dayton's, rolling out lew of gray pants and turtlenecks—t at a hefty discount. Target's "gray es" blew away Wal-Mart and nart on style. Moreover, Target's e of gray goods was on average 5% cheaper than similar offerings at enney and Sears.

What Target learns in apparel, it anslates to the rest of the store. Cap-alizing on the gray rage this fall, arget sold silver serving plates, ster-ng jewelry, opaque metallic garbage ns and goblets with platinum swirls.

Target stores are big—an average 25,000 square feet, equivalent to the pical Wal-Mart. But you don't feel ke you're wandering through an mpersonal, harshly lit warehouse with roducts stacked to the ceilings. Target isplays its goods on low, accessible helves in neat, color-coded sections, luminated by track and halogen light-ing. Nor does Target clutter its 10-foot-wide aisles with store displays and merchandise the way Wal-mart and Kmart do. The place is easier to shop, too, with the shoelaces next to the shoes instead of over in aisle 7.

All this keeps Target appealing to those "guests." Who are they? College-educated, stay-at-home-but-tuned-in moms with family incomes of $47,000, compared with $42,000 for Sears and $41,000 for Penney. Says Woodrow's boss, Dayton Hudson Chief Executive Robert Ulrich, 55, "Our research clearly shows that the higher the income, the better educated, the more the guests like to shop our stores."

Target's edgy $500 million marketing campaign, featuring models in boas made of feather dusters and skirts that are really accordion lampshades, strikes just the right note for this audience: Get it? Target sells household goods plus the latest trends of fur collars and accordion-style pleats.

Toaster by Graves
A Target exclusive.

The company doesn't stop at knocking off the competition's merchandise. After Gap ran a successful ad featuring swing dancers last year, Target jumped in with its own version just in time for Christmas. The big coup came when *Vogue* and *Elle* accepted Target ads last year, a first for a discounter.

Next: a massive expansion in the Northeast, where Wal-Mart has yet to make inroads and lots of other discounters have flopped. Target has opened 60 East Coast stores in places like Exton, Pa., Wilmington, Del. and College Point, N.Y., just across the bridge from Manhattan. It plans to open 100 more in the next two years. So far its high taste and sharp pricing have been a big hit in the region, with expected comparable-store sales growth of 5% and revenue and operating earnings growth of 13%. That Sarah Jessica Parker plug didn't hurt, either.

DEALS

Steve Wynn has a new neighbor on Las Vegas' Strip. She's a 73-year-old grandmother. Don't snicker.

Die with your boots on

By John Gorham

A LITERAL MONUMENT to conspicuous consumption, Steve Wynn's 3,000-room Bellagio hotel and casino is replete with $300 million in fine art, synchronized operatic water shows, Hermès, Armani, and Prada boutiques, and $1.6 billion in Wall Street money.

But what's this next door?

Nestled beneath the Bellagio's unmissable neon sign is a tiny low-rent time-share Strip resort called the Jockey Club, and eight-and-a-half acres of ugly parking lots.

The party pooper is a 73-year-old grandmother named Margaret Elardi, a grande dame with brass knuckles. Almost as rich as Wynn, just as shrewd though much less visible, she has made an estimated $300 million or more in real estate and casinos. She bought the parcel last January for $46.5 million cash from a bankrupt outfit called Dynasty, Inc. Wynn once considered buying the parcel, but now claims he isn't interested.

Las Vegas pioneer Margaret Elardi
This Granny is no pushover.

Elardi's shabby site is now the only significant plot Wynn doesn't own in a 150-acre parcel he's assembled in the heart of the Las Vegas Strip. The two don't care much for each other. Wynn, no doubt, worries that the low-rent operation spoils the upscale image he cultivates. According to a close associate, Elardi is still smarting because she heard that Wynn called her family the Beverly Hillbillies.

Elardi has been a power in town for longer than Wynn. She was running the old Pioneer Club in downtown Las Vegas when Wynn was just out of Wharton. She is a throwback to an older generation of Nevada gambling

SUSAN WERNER

Steve Wynn's Bellagio
Elardi's $1.6 billion view.

entrepreneurs who created fortunes from sawdust-floored gambling halls long before Wall Street and junk bond peddlers discovered Vegas.

By Las Vegas standards, Elardi is almost pioneer stock. She apparently got her start in business managing the books for her husband Charles' Los Angeles contracting business. By the mid-1960s the Elardis had made enough to retire to Las Vegas.

While her husband enjoyed piloting his small plane, Margaret got bored quickly. In 1967, with her share of the retirement money and backing from legendary Las Vegas banker Parry Thomas, she leased the space in downtown Las Vegas that housed the shuttered Pioneer Club. She opened it as a true "grind joint"—nothing fancy, with 192 slot machines and nine betting tables. To keep an eye on the business, Elardi slept upstairs. Within a few years Elardi was funneling profits from the casino into other investments like a local bank and an Arizona hotel. Elardi sold the casino in 1983.

Her biggest score was in 1981 when she wrested control of a small casino in Laughlin, Nev. She paid around $3 million and renamed it the Pioneer Hotel & Gambling Hall. Laughlin was an hour-and-a-half closer than Vegas to gamblers driving in from Phoenix and Los Angeles. She gussied it up a bit, adding 200 hotel rooms and a fancy restaurant called Granny's with a maître d' and champagne brunch.

She also installed one of the first player-tracking systems in Nevada. By holding costs down, she generated a cash flow margin of 43%. That compares with the 25% margins achieved these days by the best Strip hotels.

But right before big casino companies like Circus Circus and Harrah's overbuilt her Laughlin turf, she sold out in 1988 for $112 million. Superb timing. In 1992 the market cratered, done in by overcapacity and the rise of Indian casinos in Arizona and California.

Her next project was a $70 million investment in the aging Frontier Hotel and adjoining land on the Las Vegas Strip. The Frontier was unionized and Elardi has no use for unions. After the union contracts expired in 1989, she forced a strike by the Culinary Workers Union Local 226 and several others. She stayed in business on a shoestring, neglecting maintenance but refusing to give in. The strike was settled six years later in 1998 when Wichita developer Phil Ruffin bought the rundown Frontier for $167 million.

What does she plan to do with the Strip land and its rather tawdry facilities? Elardi has discussed leasing the undeveloped acreage to outside investors, including New York real estate firm NorthStar Capital. Or she could develop it herself.

No hurry. Each day Wynn's Bellagio complex is open, her land becomes more valuable. If Wynn or anyone else ever hopes to buy it, they had better be ready to write a very fat check. Though she refuses to talk with FORBES—or anyone else from the media—she did recently tell an acquaintance: "Die with your boots on. Don't ever sell out." ■

TECHNOLOGY

The glitch watch

By Adam L. Penenberg and Joanne Gordon

What are you doing for New Year's—a year from now, that is? That's when Y2K arrives, and it's possible that computers, air-traffic radar, banking systems and utilities will be teetering. We asked the experts and others about their plans. You have to take their answers with a grain of salt, since some of these guys make a living as Y2K alarmists. But then again, maybe you should take some precautions.

Edward Yardeni, 48.
Chief economist for Deutsche Bank Securities, New York, N.Y.
Says Y2K likely to cause recession.
"I'll be home in the suburbs with extra cash on hand, some boxes of spaghetti, bottled water and flashlights. I won't be running out into the woods with a shotgun—I'd be too afraid of running into other guys with shotguns."

Gary North, 56.
Self-employed Y2K extremist, Fayetteville, Ark.; his Web site (garynorth.com) prophesies Armageddon.
Will watch the chaos on television—if it still works.
"I predict a stock market collapse; the breakdown of most postal services, banks and credit card companies; and a mass exodus of programmers, leaving no one to fix things."

James (Randy) Schwitz, 46.
Executive vice president, National Air Traffic Controllers Association, Washington, D.C.
No airplane trips.
"The only way the FAA will know if its Y2K fixes work will be when the clock ticks past midnight on Jan. 1, 2000—during live traffic. I don't care to be one of their guinea pigs."

Scott Nason, 47.
Chief information officer, American Airlines, Fort Worth, Tex.
Early on Dec. 31, "We'll call Qantas Airlines in Australia. They'll hit the millennium 14 hours before we do." Then he'll throw an office party for his staff: "We'll start drinking after midnight, and they'll party until they fall asleep. If needed, I'll know where to find them."

Gregor Bailar, 35.
Executive vice president and chief information officer, National Association of Securities Dealers, Rockville, Md.
Might your account get deleted?
"Ludicrous. But I'll have paper printouts of my personal finances. Just in case."

Vito C. Peraino, 42.
Partner, Hancock Rothert & Bunshoft, Los Angeles, Calif.
"It will be the biggest litigation event in history, so I'll be busy with clients. Remember the L.A. riots? Very scary. The nature of this problem makes large-scale unrest conceivable."

Frank Ianna, 49.
President, AT&T Network Services, Basking Ridge, N.J.
Parent spent $600 million on Y2K. Will be at work, preparing contingency plans.
"Since we are an international company, we'll greet the New Year 24 times in one day." Sees the potential for trouble even earlier, on Sept. 9, 1999. "The computer could read '9999' as an error code. . . . But look on the bright side: It's one of the few instances where IT projects come in on time—or else."

Peter de Jager, 43.
Consultant, Brampton, Ont., first sounded the Y2K alarm in 1993.
"My biggest fear is the media will ramp up the Y2K threat so high that people will panic and cause a run on the banks. Don't listen to the lunatics who tell you to head to a cabin in the woods with a year's worth of food."

John Panchery, 45.
Technology vice president, Securities Industry Association, New York, N.Y.
Will run SWAT teams working to stave off Y2K disaster.
"Anything we can't control, like utilities, is a liability. Wall Street's big computers are cooled by water and can't function without it. Some broker-dealers keep securities in safes with embedded chips—but safes may not open come the year 2000."

Edward Yourdon, 54.
Y2K consultant; coauthor, Time Bomb 2000, New York, N.Y.
Says 15% of systems won't be fixed in time. Will stay in New Mexico, where rooftop solar panels free him from relying on power grid. "We won't be in any urban areas: Power outages could cause social unrest."

MARKETS

Every year we ask Wall Street's experts to pick a single stock to ride or sell short for the year ahead. In 1998 our bears did better than our bulls.

If you could love only one

By Mila Alper and Robert J. Sherwood

THOUGH THE S&P 500 gained 20% in 1998, our bulls were trampled last year: On average their 12 stocks rose only 8%. But the year's volatility served our bears well. Their 5 picks fell 37%, on average.

In this little game each year we ask the analysts who outperformed the market to try their luck for another year. We replace the underperformers with fresh blood. Our nine-year champion, Van Brady, finally took a fall. His stock for 1998, Impath, is down 27%. Only 4 of last year's 12 bulls managed to beat the S&P.

Walter Schenker of Brook Asset Management bucked the trend. His stock, Comcast UK Cable Partners, was acquired by NTL in October and is credited with a 105% gain.

The other returning bulls are Peter Canelo from Morgan Stanley. Canelo went long with Time Warner, which is up 78%. PacifiCare Health Systems, chosen by Philip Foreman of WM Advisors, rose 40%. Also returning is three-year veteran William Nasgovitz

Stocks to buy . . .

Name/affiliation	Ticker	Stock	Price 12/11/98	Reason
Peter Canelo/Morgan Stanley	CPQ	**Compaq Computer**	$41.88	expects positive 1999 earnings after 1998 writeoffs
John A Carey/Pioneer Investments	HWP	**Hewlett-Packard**	65.44	cheap relative to industry
Charles B Carlson/DRIP Investor Newsletter	T	**AT&T**	70.06	shifting focus from telecom to technology
James E Chaney/Hansberger Global Investors	PAP	**Asia Pulp & Paper (ADR)**	8.00	Asia recovery play
Drew J Collins/Federated Investors	ICLRY	**Icon (ADR)**	29.00	cheap relative to expected 40% EPS growth rate
John Dessauer/Dessauer & McIntyre Asset Mgmt	BFT	**Bally Total Fitness**	22.38	strong management & growth potential
Joel Dobberpuhl/AIM Value Fund	WCOM	**MCI WorldCom**	64.38	best highway system for Internet & data travel
Jeffrey Feiner/Lehman Brothers	WMT	**Wal-Mart Stores**	76.31	expects strong earnings growth
Philip Foreman/WM Advisors	MDM	**MedPartners**	5.00	insiders are buying as company focuses on core businesses
Al Frank/Prudent Speculator	ALU	**Allou Health & Beauty**	9.00	cheap stock with big Internet presence
William Nasgovitz/Heartland Advisors	BEV	**Beverly Enterprises**	6.44	stock is cheap & company is buying back 20% of shares
Walter Schenker/Brook Asset Mgmt	ABTX	**AgriBiotech**	10.94	rapid growth makes it an acquisition target
. . . stocks to sell				
Manuel Asensio/Asensio & Co	PRKR	**ParkerVision**	$23.13	technology laggard with falling sales
Alan Jacobs/Avalon Research Group	MTRS	**Metris**	39.75	will miss high 1999 earnings expectations
Robb Knie/Equity Advisors	NEON	**New Era of Networks**	39.38	pressure from Microsoft & Y2K expenditures
Robert B. Lang/Lang Asset Mgmt	BUD	**Anheuser-Busch**	63.25	overpriced compared with prospective sales & EPS growth
David Tice/Prudent Bear Fund	AFS	**Associates First Capital**	74.38	expects rising default rates in home equity loans

We replaced eight of last year's bulls because they failed to beat the S&P 500; only four bulls from last year are back for another round. Four of last year's bears were right on the mark; Robert Lang is this group's only newcomer.

Heartland Advisors. Nasgovitz's pick, El Paso Electric, is up 22%.

Three of our bears shone; only one, Thomas Chanos of Badger Consultants, failed to pick a winner. Instead of dropping, his short recommendation, Musicland Stores, gained 66%.

David Tice of the Prudent Bear Fund said FirstPlus Financial was a great short. Right on, David. The stock is off 90%.

Alan Jacobs of Avalon Research Group shorted North American Vaccine. It dropped 65%. Splash Technology Holdings, shorted by Robb Knie of Equity Advisors, fell 64%. BioTime, picked by Manuel Asensio of Asensio & Co., is off 31%.

For the bullish and bearish picks for 1999, see the table on page 54. To monitor these picks, visit our Web site at www.forbes.com/tool/toolbox/lovejustone/ where we maintain continuous price updates.

Volatility hurt the bulls . . .

Name/affiliation	Ticker	Stock	% change[1]
Walter Schenker/Brook Asset Management	CMCAF	Comcast UK Cable Partners	105%[2]
Peter Canelo/Morgan Stanley	TWX	Time Warner	78
Philip Foreman/WM Advisors	PHSYA	PacifiCare Health Systems	40
William Nasgovitz/Heartland Advisors	EE	El Paso Electric	22
Alan Skrainka/Edward Jones	HLI	Hartford Life	11
Ronald Muhlenkamp/Muhlenkamp Fund	GNT	Green Tree Financial	11[3]
Michel Hanigan/SBC Warburg Dillon Read	NTDOY	Nintendo (ADR)	–5
Wendy Abramowitz/Argus Research	FDC	First Data	–11
Van Brady/Presidio Management	IMPH	Impath	–27
William Edwards/Palo Alto Investors	SDIX	Strategic Diagnostics	–28
Edward Cronin Jr/Manchester Capital Management	TBH	Telebras (ADR)	–30
Judith Vale/Neuberger & Berman	NOI	National-Oilwell	–71
. . . and woke the bears			
David Tice/Prudent Bear Fund	FP	FirstPlus Financial	–90
Alan Jacobs/Avalon Research Group	NVX	North American Vaccine	–65
Robb Knie/Equity Advisors	SPLH	Splash Technology Holdings	–64
Manuel Asensio/Asensio & Co	BTIM	BioTime	–31
Thomas Chanos/Badger Consultants	MLG	Musicland Stores	66

[1]Performance from Dec. 31, 1997 to Dec. 11, 1998. [2]Represents 0.3745 shares of NTL. [3]Represents 0.9165 shares of Conseco.

Last year's bullish experts were up only 8% on average, versus 20% for the S&P 500. But four of our five bears posted losses bigger than the gain in the market.

COMPANIES

When you are in the franchising business, a little love and tenderness goes a long way. Just ask those Midas Muffler shop owners.

Life is about trust

By Brandon Copple

WENDEL PROVINCE'S FIRST JOB, at age 11, was sweeping out a Western Auto parts shop in Jonesboro, Ark. By the time he was 30 Province owned a couple of parts warehouses selling hoses and crankcases to independent garages in Jonesboro. It was a hard living. Since he had no contracts with his customers, each sale had to be negotiated separately. This is what he learned: "Life isn't about contracts, it's about trust."

That philosophy has taken him far. In 1989 he joined auto parts chain Pep Boys, where he rose to become chief operating officer. In January 1998 Province, 50, was hired as chief executive of $600 million (sales) Chicago-based muffler maker, Midas, Inc.

Until a year ago Midas was a subsidiary of Rolling Meadows, Ill.'s Whitman Corp., a miniconglomerate that bottled Pepsi and made refrigeration equipment. Like many conglomerate children, Midas was badly neglected. The number of shops stayed about the same between 1992 and 1997; the company hadn't offered a new product since 1982. Same-store sales were flat through the 1990s, and operating margins slipped from 13.6% to 11.2% from 1993 to 1997.

Midas was in a good business. There was clearly room for expansion. It held only 18% of the $2.7 billion replacement exhaust market and 12% of the $4.4 billion replacement brake market. It was twice the size of its only national competitor, Meineke Discount Mufflers.

Whitman spun off Midas to shareholders in January 1998. With the dead hand of conglomerate management lifted, Midas needed a different touch. To help provide it, Province brought with him Pep Boys' senior vice president for merchandising and its chief information officer.

Now for a little of that trust that Province has always believed in. The company's 780 franchisees had for years felt alienated by Whitman. One of the reasons was that Midas' 150 company-owned stores were in markets like Chicago, Los Angeles and New York, and were competing directly with its fran-

JEFF SCIORTINO

Midas Chief Executive Wendel Province
His retail smarts and country charm have franchisees swooning.

chisees. Since the franchisees account for more than 90% of Midas' revenues, this was a serious problem.

To show whose side he is on, Province told franchisees he would unload the company stores. To date, he has sold them 103 shops. With the $20.6 million in proceeds from these sales, he's planning to give every franchisee a check for $15,000 per shop for new signs and fresh paint inside and out.

In his second week on the job he fired off a letter to every franchisee promising price cuts on a different part every month—meaning they were assured of having specials to offer on a regular basis. Brake pads by 10% one month. Wheel cylinders by 15% the next.

So far Province has shaken hands with the owners of 1,500 shops. "I will always be out there," he says.

To get some sales growth going, he added Midas' first new products in 16 years, a new line of batteries that came out last September. In 1999 expect Midas to introduce alternators and air-conditioning parts. By adding products, Midas derives additional revenues. He hopes the stores will buy 80% of their parts from Midas, up from 65% today, adding $55 million to corporate revenues.

In wooing the franchisees, Province asked them to do something that was outside of their contracts with Midas: stick with nationally advertised prices. The franchise agreement requires only that they buy exhaust, brake and suspension parts from the company; it says nothing about prices.

Province offered franchisees a series of slick national TV campaigns if they would agree to stick to the advertised prices. They did, and next year Midas will double its national TV spending from 20 weeks to 49 weeks, mostly prime time and sports programming. Franchisees will not have to pay any part of the added spending.

"We all fell in love with him," says Kent Childs, the co-owner of 16 shops in Massachusetts, Connecticut, Missouri and Illinois. He bought 12 of those shops after meeting the new boss at a February conference, where Province stood before 400 franchisees in shirtsleeves, confidently fielding tough questions for two straight hours.

Province has vowed to shake hands with every single franchisee; so far he has met the owners of 1,500 shops of Midas' total of 1,890. After an interview with FORBES, the affable Province hopped a plane to Los Angeles, where he plans to press a lot of flesh. "We're tied to their [franchisees'] coattails," he says. "I will always be out there."

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Will transnational companies lead to world government?

No more barriers

A chat with Jürgen Schrempp by Justin Doebele

MULTINATIONAL COMPANIES are old stuff now, but DaimlerChrysler is something else again. Most multinationals have one nationality but operate across borders. DaimlerChrysler has two nationalities. In a sense this gives the $143 billion (1998 estimated revenues) new entity enormous flexibility. It can shift investments and manufacturing to wherever conditions are most favorable. We talked about this with DaimlerChrysler Cochairman Jürgen Schrempp.

Schrempp: You touch upon an important point. We have to review the corporate governance of truly international companies. That doesn't mean you take as your model how U.S. companies operate, or how German companies operate.

At DaimlerChrysler we are finding our own answer. We have a codetermined [by shareholders, management and labor] supervisory board, and a shareholder committee. We have, for example, the president of the United Auto Workers union on our codetermined board. Thus we will have, on the labor side, a transatlantic coming together [of the German and American systems].

This is just a starting point in changing corporate governance. The end result is that you will have companies making decisions on a neutral basis, not a German or U.S. basis. We have started an evolutionary process that will also have an influence on national politics.

DaimlerChrysler Cochairman Jürgen Schrempp

Can a corporate merger change the world?

FORBES: What does this mean for national sovereignty. Who sets the rules?

Just as we businessmen have had a dialogue with politicians on a national basis, we need now a dialogue with politicians on an international basis. First of all we have to do this on a transatlantic basis. Once we get that right, then we can do it on a global basis.

At the end of the day we will have a transatlantic union—and then let's take it further, eventually building a world union. No barriers anymore. International companies. Internationally accepted corporate governance. Access to all markets, with management coming from all parts of the world. DaimlerChrysler can be a catalyst in moving in that direction.

Whose model will prevail? The U.S.'? Or Europe's?

[Laughter] It will be somewhere in the middle, maybe a little bit more toward that of the U.S.

We were the first German company to introduce stock options, and I have been criticized in the [German] media about this. You know, in Germany people are worried that if just a few guys with stock options run a company, they will optimize short-term results and then run off with the money. But now my peer group is following our lead.

We have tried to design [an executive compensation] system that should be a model for continental European companies. It has two elements. First, management should not optimize or maximize shareholder results on a short-term basis. You must have [compensation] elements that are medium- to long-term.

We also want to strike a balance between interests of employees and shareholders. This is why we have four parts in a plan that is now under discussion. First, there is a fixed base salary, no more than 25% to 30% [of total compensation]. [Then there is] a bonus that is linked to operating profits, and then a medium-term stock plan that clearly defines targets on an annual basis. We also have stock options designed to make you part owner of the company.

Finally, there is a fifth element: If you are a top guy in the company, you must buy the stock. This is a new thing for Germany.

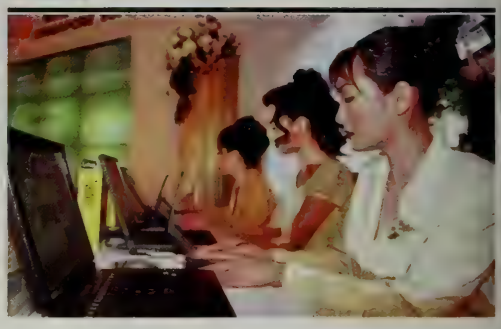
Your ideas about international governance sound utopian.

It will take a few decades to get there, but you have to start. I think the start is transatlantic.

Mass training (left) and Miss Internet contest
"They've wired everybody."

An island in more ways than one, little Singapore is eagerly embracing change while its Asian neighbors seem paralyzed by it.

Wired island



By Andrew Tanzer

SURROUNDED BY devastated economies, this affluent city-state hasn't escaped unscathed. Economic growth in 1998 and 1999 will be near zero, off from nearly 8% in 1997. But unlike those of many of its neighbors, Singapore's problems are largely imported rather than self-imposed. Singapore's institutions and financial system are sound. Whereas both Hong Kong and Malaysia panicked and backtracked on laissez-faire policies, and Korea (see "Symptom therapy," *p. 88*) has failed to curb the all-powerful *chaebol*, Singapore has used the crisis as an opportunity to further liberalize the financial sector, cut taxes and roll out the red carpet to immigrants with skills.

"Singapore has responded by opening up even more, embracing globalization," comments Linda Lim, a professor of Southeast Asian business at the University of Michigan. "They're releasing policies and incentives to ensure that Singapore emerges as the preeminent business hub in Asia," says Steve Stine, of PriceWaterhouseCoopers in Singapore.

Instead of trying to micromanipulate the economy, the Singapore government has concentrated on strengthening what is becoming the most modern national information infrastructure in the world. Singapore's computer-to-household ratio of 45-to-100 is one of the highest in the world, and its Internet penetration rate is the highest in Asia.

Consider this: By the fall of this year every household on this tiny, densely populated island of 3.2 million will be hooked up for Singapore ONE (one network for everyone) service. This high-speed broadband network operates at one hundred times the speed of standard dial-up modems. This government-conceived, privately operated system can easily handle live video streaming, movie-quality video, interactive multimedia applications and services such as video-on-demand and education-on-demand. Singapore's schools, offices, libraries and government agencies will be connected.

"Singapore ONE is at least two to three years ahead of anything comparable in the world," comments William Chung, director of IBM's Emerging Technology Center in Singapore. Chung says IBM is using Singapore as a laboratory to test high-bandwidth management and services. "Here in Singapore they've wired everybody."

Singapore has used its superb and reliable port and airport facilities as a selling point to attract multinational investors. The rapidly modernizing IT backbone will serve the same purpose. The principle is: Build the superhighway and the traffic will come. "Connectivity will attract cyberactive multinationals to develop services for Asia," predicts Chan Wai Leong of Booz, Allen & Hamilton.

This commitment to technology permeates the government from the top down. "B.G. Lee, Goh Chok Tong and Lee Kuan Yew are all Web surfers," says Lim, referring to the country's deputy prime minister, prime minister and senior minister, respectively.

Government services, such as permits and payments, are increasingly delivered over the Net, as are bids for Defense Ministry procurement programs; import-export clearance is

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handled in minutes by a paperless customs process. The Port of Singapore Authority, which operates the busiest container port in the world, uses an artificial intelligence system for optimum container-stacking and ship-berthing arrangements. "The labor-intensive tasks are being phased out," notes Eric Lui, director of PSA's IT department. "Everybody will be a technician or controller."

In 1998, to reduce road congestion, Singapore launched the world's first electronic road pricing system, in which value is automatically deducted from smart cards installed in devices in all motor vehicles. Even the courts are being hooked up to electronic filing and retrieval systems to boost productivity. "We hope that by raising efficiency, more disputes and cases from other countries will be tried in Singapore courts," says Chiam Boon Keng, registrar of Singapore's Supreme Court.

AP/WIDE WORLD

Singapore fruit vendor checks for orders

Internet access is a kind of right.

Singapore's drive to become the world's first entirely wired society starts with the schools. The government is spending $1.2 billion over five years to bring computers and broadband access into all the schools; proportionate to the population, that is equivalent to a $100 billion program in the U.S. It will require tearing down and rebuilding many of the school buildings. "We are looking to an education system appropriate for the knowledge-based economy of the future," says Minister for Education Teo Chee Hean.

Kids are easy to teach, but what about adults? With corporate sponsorship from the likes of Microsoft and Cisco Systems, the National Computer Board hosts mass training sessions for adults, a kind of boot camp to teach basic computer and Internet skills. Thousands of housewives, retirees and blue-collar workers learned how to log-on at last September's weeklong Surf@Stadium, held at an indoor stadium.

For those who can't afford computers or Internet access at home, there are computer-filled community clubs, staffed by volunteer "cyber-

Tread lightly *and* luxuriously in Lincoln Navigator. Tread spaciously, too. Navigator has room for seven in three rows of leather-trimmed seats. To learn

guys," near every public housing complex (more than 80% of the population lives in public housing). Thousands of computer kiosks are going up right now near public transport stations. Internet access will be a kind of universal right. "The government is willing to look at the social aspects of technology, so that it's accessible and used by everyone, not just by a technical elite," says IBM's Chung.

"We don't want any part of our population or work force to be left out," says Teo. "You [can't have] mass system-efficiency if you have a system where some of the people are computer literate and some are not."

Tangible results are already in. Compaq and Hewlett-Packard have set up e-commerce Web sites in Singapore to serve consumer markets in the Asia-Pacific region. A local firm, Asia Manufacturing Online, is conducting integrated supply-chain management for industrial companies such as Sony and Matsushita. Disney, HBO, MTV, Discovery, CNBC, ESPN and others have set up shop here, raising hope that the island could become a kind of Far Eastern extension of Hollywood. Despite a history of censorship, Singapore now realizes it can do little to control the flow of information.

"We have been a traditional entrepôt, and e-commerce is an extension, or another means, to do trade," says Ng Kim Neo, a senior director of the Trade Development Board. "We think there is a case for an e-commerce hub in Asia to work through the maze of different laws, payment systems, currencies and languages."

To stimulate the development of the software and content industries, Singapore has thrown the door wide open to immigrants with skills. Software engineers from India, China, the Philippines and elsewhere are welcomed. Says Minister for Information & the Arts George Yeo, "[Foreigners] bring brainpower, talent, connections, entrepreneurism."

Note that the government isn't using subsidies to artificially create computer or chip businesses to compete with Silicon Valley. It's a more subtle emphasis, on harnessing technology rather than on creating it. "Most countries in Asia promoted the production of computers, but Singapore has put the most emphasis on the use of computers," explains Jason Dedrick, coauthor of the recently published book *Asia's Computer Challenge*. "There's a lot of value in being first in using and exploiting new technology," comments Saw Ken Wye, managing director of Microsoft Singapore.

In short, the people who run this country seem to have embraced change wholeheartedly and intelligently. Even to the extent of trying to change social attitudes—not by government dictate but through a free market and a free society. "Singapore understands the need to change what was a successful model," says Keven-john McIntyre, general manager of Discovery Channel-Asia. "Japan, Malaysia and Korea are resisting change."

Employees often stay home when their kids get sick or the nanny disappears. Should companies offer emergency day care? Here's an argument in favor.

Those baby-sitter blues

By Susan Adams

SUSAN SAUNGER

Lifesaver: A backup day care center.

ALAN CONWAY'S PREGNANT WIFE was bedridden, suffering from severe morning sickness. Conway couldn't take off from his job at Morgan Stanley Dean Witter, where he was a computer systems programmer. Who would care for the couple's 13-month-old daughter, Ashley? No family or friends lived near their home in Cedar Grove, N.J.

No problem. Morgan Stanley offers backup child care. Every day for two months this past summer, Conway dropped Ashley off at a day care center just three blocks from his midtown Manhattan office. He knew Ashley was in good care. Run by ChildrenFirst, a Boston outfit, the center offers gleaming toys, fish tanks, computers and highly-trained staffers, most with master's degrees in education.

Who paid? Morgan Stanley. It is one of 150 companies that contract with ChildrenFirst to stand ready to provide emergency day care for their employees' children. To reserve one space at a ChildrenFirst center in New York City, companies pay up to $27,500 a year; that price often drops for additional spaces. Some employers charge their workers a copayment of up to $30 per day, and usually limit their employees to 20 days usage per year.

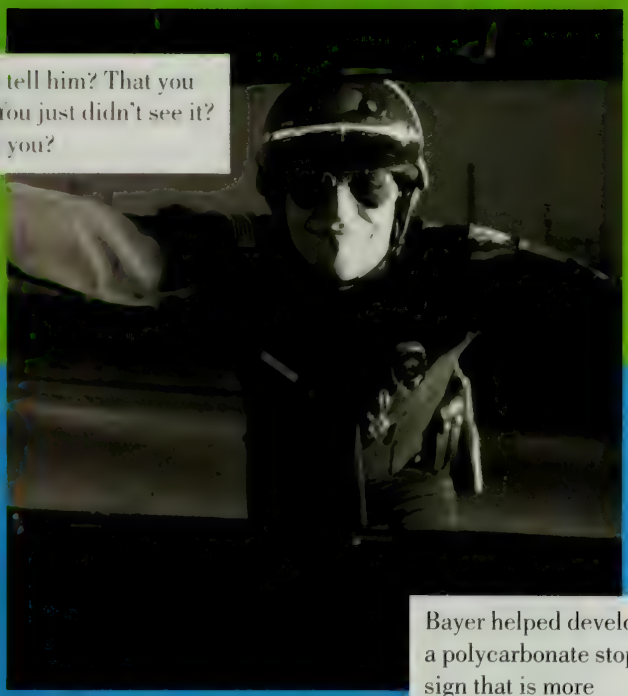
Backup child care is a fast-growing employee benefits program—and it's easy to see why. It's relatively inexpensive for companies and a lifesaver for workers. Fifteen percent of large corporations offer some form of backup day care, up from only 8% in 1993, according to a 1997 study by human resource consultants Hewitt Associates.

Standby child care comes in various concoctions. Some companies run their own centers on-site or nearby the place of business. Others pay for baby-sitters to go to an employee's house *(see box, p. 72)*.

Statistics show that the need for emergency child care is a common problem. According to the Families and Work Institute, most families require it an average of four times a year. A baby-sitter gets sick or suddenly quits. A child catches cold and can't go to a day care center. Or someone falls ill. The parent doesn't want to miss work, but what's the choice?

The cost to companies of these unplanned absences can be staggering, especially in businesses like law or accounting, where professionals bill hourly. Indeed, law firms pioneered backup child care, starting in the late 1980s when Arnold & Porter opened a center with space for 15 children at its home office in Washington, D.C. The firm calculates that it saves more

WHAT ARE you going to tell him? That you didn't see the stop sign? You just didn't see it? Think he'll buy it? Would you?



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Changing the world with great care.

A contrarian view: It sounds lovely to help out workers with families, except then you are discriminating against singles.

Who needs family-friendly companies?

By Dan Seligman

A FEW YEARS AGO the U.S. Department of Labor appointed a Glass Ceiling Commission, which predictably produced a report bemoaning the unfair treatment said to prevent women and minorities from getting ahead in businessland. My favorite comment on this exercise was that of economist Paul Craig Roberts, who observed that the only useful thing in the report was its list of 84 companies rated especially friendly t women and minorities. The list Paul posited, would be indispens able to white male college gradu ates wanting to know what employ ers to not bother with.

As this wisecrack reminds us, it i extremely difficult on this planet t give a break to group A withou instantly reminding groups B through D (if not X) that they are being dis criminated against

than a half-million dollars yearly above the cost of running the center.

Chase Manhattan offers a center for 110 children, ages 8 weeks to 12 years, at its office complex in Brooklyn. It is operated by Bright Horizons Family Solutions. Chase's return-on-investment analysis found that it was saving some $1.5 million in avoided absenteeism alone, while the yearly cost of running the center was $700,000. Chase is so pleased with its Brooklyn experience, says Vice President Joy Bunson, that it's opening si more backup centers over the next 18 months. ■

The players in backup day care:

Bright Horizons Family Solutions
Based in Cambridge, Mass., runs 33 backup programs in 31 cities. Yearly cost to clients: $17,000 to $24,000 per slot in an off-site center in New York City. Charges up to $350,000 to run on-site center with 20 to 30 spaces.

ChildrenFirst Inc.
Privately held, with estimated $10 million in annual revenues. Based in Boston, it was founded in 1992 by Rosemary Jordano, 36. It runs 15 centers in 6 cities. Yearly cost to New York City clients: $21,000 to $27,500 per space in an off-site center. Charges up to $400,000 to run an on-site center with 20 to 30 slots.

Lipton Corporate Child Care Centers, Inc.
Founded in 1990 by Diane Lipton Dennis. Family-run East Coast provider based in Washington, D.C. Runs only small, off-site centers. Charges $23,000 a year for one slot.

Caregivers on Call
Based in Lynbrook, N.Y. Company sends certified home health aides to care for children and adults, including those with mild illnesses. Companies pay between $5,000 and $10,000 yearly. Typically, employees are entitled to 30 hours of care yearly. –S.A.

TRY TO explain to your best buddy that he can't come inside because you can't seem to get rid of his fleas? Well?

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Current case in point: the backlash against family-friendly companies.

A 1998 Nexis on-line search for "family-friendly company" points you to 600 articles invoking that lovable phrase. Eyeballing the headlines, one immediately notes that a sizable number of them are reporting on a serious backlash against the concept.

One's heart goes out to the thousands of managers who assumed that they were doing the right thing—not to mention the guaranteed applause-winning thing—when they bought into the family-friendly package: flexible hours for parents, on-site day care centers *(see story, p. 70)*, special deals on parental leave, generous family health care packages, you name it. In offering substantially heftier fringe benefits to working mothers, they saw themselves as responding to an obvious social need—and, of course, the insistent demands of the women's movement.

Not that they didn't garner some bouquets. Some of their companies have been saluted on lists of the most family-friendly companies published by *Working Mother* and *Business Week*, all of which tend to produce some victories on the p.r. front. But the backlash was totally unexpected.

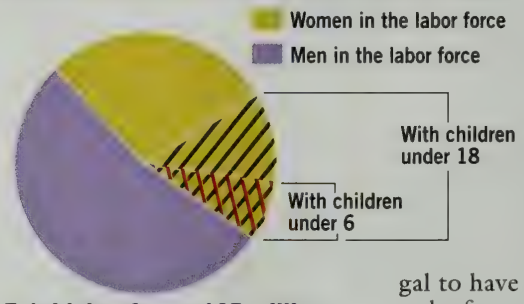
It shouldn't have been. The beneficiaries of family-friendlyism are clearly a small minority of the labor force. More than 60% of labor-force members have no children under 18. Among working women, those without children under 18 (38 million) far outnumber those who have such kids (25 million). Women with children under 6—the core of the targeted day-care beneficiaries—represent only 8% of the labor force. Why should it come as a surprise that so many of those 600 Nexis citations incorporate tales of bitterness and envy among those not in on all the family-friendly benefits?

The tales are of singles who have plans for the evening but are expected to alter them and cover for the mother whose child has a temperature, and are expected not to ask for the prime-time summer vacation slots, and don't benefit from day care centers, and take it for granted that the money invested in the centers is ultimately coming out of their own pockets.

Family-friendly companies have clearly touched some sensitive nerves among singles, many of whom see themselves as living in a society that endlessly discriminates against them. Singles pay more per capita for hotel rooms than do married folks. A single worker gets a crummier return on Social Security than a married worker with a nonworking spouse. Cruise ships don't offer single-person cabins. Health clubs offer discounts for married couples. Restaurants give singles lousy tables. Singles note bitterly that they hit the 31% bracket at $61,400 of taxable income in 1998, while their friends who have acquired stay-at-home spouses don't see that bracket until $102,300.

Day care winners & losers

Winners are mostly drawn from the 25 million women (out of 63 million in the labor force) who have kids under 18, and especially the 11 million with kids under 6. Losers are drawn from the other 110 million workers.



Total labor force: 135 million

Another constituency long beset by a sense of discrimination is the childless, who may or may not be single. A 1996 Conference Board survey of companies with family-friendly programs found 56% of the companies acknowledging that childless employees harbor resentments against those with children. One high-profile complainer about bias against the childless is Leslie Lafayette, an unmarried Californian, who in 1992 founded the ChildFree Network, which now claims 38 chapters and around 5,000 members. In endless interviews and talk-show gigs, Ms. Lafayette has complained bitterly about employers who discriminate against the childless, expecting them to work longer hours and accept lower levels of compensation.

"To expect other people to, in effect, subsidize you for having your own children, I think is really off the mark," she said on *Good Morning America* last April. In an interview with *Training* magazine, she said she thought day care on the premises was a great idea—but also thought it should be paid for by its users. "Why wouldn't they expect to pay for it?" she demanded. "I mean, I wouldn't expect my employer to buy me socks."

The child-free movement insistently uses the vocabulary of the civil rights movement—"diversity," "alternative lifestyles," "inclusion"—in making its case against family-friendly companies.

Missing so far, but also seemingly predictable, is federal legislation to curb the family-friendly company, possibly by amending the Equal Pay Act. The act makes it illegal to have separate compensation scales for men and women performing similar tasks. Well, what about separate scales for workers who do and don't have kids? Writing in the *St. Petersburg Times* last January, columnist Robyn Blumner made a devastating point about the act that I had not seen elsewhere. The act was written into law back in 1963 precisely to counter the argument that men needed higher pay because they were more likely than women to be providing for families. The logic of the law was that compensation should be driven by job performance, not family responsibilities. If you buy that logic, asked Blumner, how can you accept the spectacle of thousands of companies offering vastly greater fringe benefits to workers with kids?

But who needs legislation to correct family-friendly injustice? There's always the free market, in the form of millions of workers without kids, quite a few of whom are out there looking around for companies to not bother with. ■

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The Goldbergs in Ahava's m
A business built on science and romance

Brett Goldberg studied Amharic at Yale. By convoluted paths it led him to the Dead Sea—and to romance and business success.

Marketing mud

By Phyllis Berman and Adrienne Sanders

THE FLOOR OF THE DEAD SEA is 1,300 feet below sea level—the lowest point on earth. Its bottom, rich in magnesium, potassium, bromine and calcium, is reputed to cure psoriasis and eczema and even ease arthritis pain. This is one of the many reasons some 600,000 tourists flock there every year to float effortlessly on its salt-laden waters.

Cleopatra believed the mud enhanced her allure. Whatever the appeal, the folks at Kibbutz Ein Gedi (built on the shores of the sea) figured there must be a way to wring some revenue from it. Thus was born Ahava products, 40 cosmetic variations on the mud theme, from shampoo to foot cream.

Unfortunately for th kibbutzniks, Ahava nev took off. That is, n until Brett Goldbe happened along. Bostonian, Goldbe studied linguistics at Yal graduating in 1981. A age 9 he had read abo the tribulations and tr umphs of European Jev fighting to get to Isra after World War I Goldberg never lost h fascination with Israel.

In 1981 a charitabl agency was looking fc someone who spok Amharic to help in th resettlement in Israel c Ethiopian Jews. Amhari was one of Goldberg' nine languages, and h took the job. He late joined the Israeli army spending one and a hal years in the tank corp and seven and a hal years in reserve. Whe Goldberg visited hi family back home, hi mother, aunts an cousins always asked fo potions made from th earth and waters of th Dead Sea.

Brett Goldberg an the Dead Sea were made for each other. Starting from scratch in the U.S. in 1991, Goldberg built a business based on it whose sales this year will reach $10 million. Within five years he expects $50 million.

In 1991 Goldberg approached the kibbutz that had been trying with little success to market Dead Sea mud-based cosmetics under the brand name Ahava—Hebrew for "love." The kibbutz agreed to let him market its products in the U.S. Goldberg headed for Saks Fifth

enue. He was turned down, but e rebuff had a happy ending: Later at year he married Eve Berenblum, ks' cosmetics department manager, hom he met while making his pitch.

As well as a wife, Goldberg got a rtner—and some good advice from er. She advised him to forget epartment stores and hit the 200 or remaining exclusive independent igh-end drugstores—like Zitomer's n New York's East Side and La Parmerie in Baltimore. Goldberg, who ad taken Israeli citizenship, returned o the U.S., and his wife joined the ompany as vice president.

"At first our product was simply a way for tourists to prolong their love affair with Israel," says Goldberg. That wasn't an entirely Jewish market: Goldberg points out that church-sponsored tourists are 70% of Israel's U.S. visitors.

By 1995 Ahava's hand cream, greaseless and absorbent, was doing well. It goes for a hefty $16 for a 3.4-ounce tube. That's less than Estée Lauder's at $30, but far more than

A modern-day Cleopatra
Slathered in Dead Sea mud.

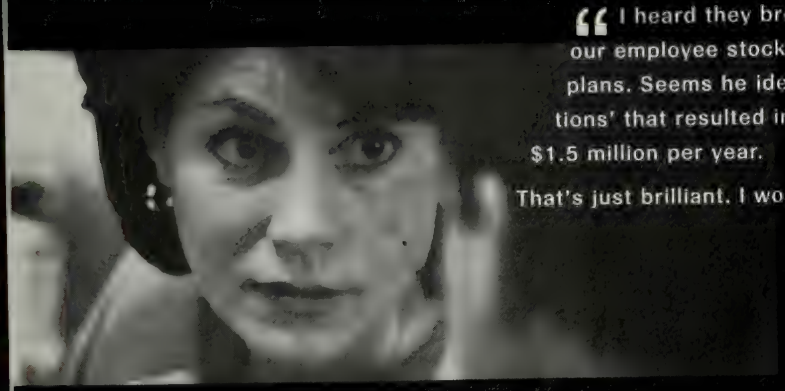
Neutrogena's 2.7-ounce tube at $7. Goldberg decided to broaden his market beyond the tourist base. To do that, it was time to hit the big-name department stores again. Today, Ahava is available at places like ZCMI stores in Utah as well as Bloomingdale's and Saks.

Television or magazine advertising is still out of reach since Goldberg and his wife don't want to dilute their ownership by taking in outside partners. They promote chiefly by giving away samples at stores that carry the stuff.

No surprise—the big boys in cosmetics have taken notice. L'Oréal introduced its Natural Sea Beauty line (made from Dead Sea mud) last year in the U.S. "No problem," says Goldberg. "L'Oréal's Natural Sea product is mass-market. We're not." (The L'Oréal products go for 50% of what Ahava's hand cream costs.)

Of course, we had to ask Goldberg: Do his products really help psoriasis sufferers? Do they really have medicinal properties? "The loyalty of our customers goes far beyond that," says Goldberg.

Or is it just the romance of the stuff? He laughs. What he does know is that his study of Amharic had unforeseen consequences—both in business and in love.



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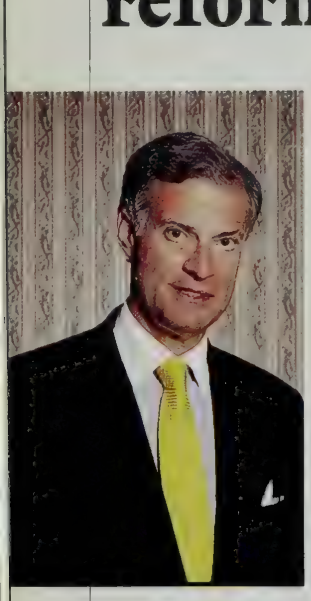
By James D. Zirin

Roadblocks to tort reform



THE RECENT SETTLEMENTS in the tobacco cases in which contingency fee lawyers amassed billions at the expense of their state government clients have offended the sensibilities of most thinking people. Outrage is piled on outrage.

Junk science, extravagant contingency fees, dubious evidence of causation and damages have transformed courts of law in many instances into collection agencies where the playing field is anything but level.

So why does tort reform make such little progress? Legislation has targeted a few areas of abuse, but state courts have nullified most of the reforms.

These reforms include:

Modifying the "collateral source" rule to prevent double recovery. The "collateral source" rule permits a plaintiff to try the case without ever informing the jury that he or she has already been compensated for an injury by insurance.

Junk science, extravagant contingency fees and dubious evidence have transformed courts into collection agencies.

Imposing rigorous standards for awards of punitive damages.

Limiting damages for mental stress or other noneconomic injury—an area where totally subjective injuries may be invented or exaggerated.

Limiting damages in professional malpractice cases and requiring prescreening of claims by a malpractice panel before a suit may proceed.

Requiring an attorney to file a certificate of merit before a case is brought.

Permitting contribution based on relative fault of third parties.

Short statutes of limitations in certain types of cases where the legislature has made the judgment that the meritorious cases are brought expeditiously.

Such reforms have passed in many states after painstaking committee hearings featuring seemingly endless debate and ample opportunity for public comment.

Yet, in 86 cases over the past 15 years, courts of last resort in at least 44 states have invalidated the reforms using strained interpretations of the states' constitutions. They have thus thwarted the will of the people as determined by the legislatures. This has happened in Kentucky, Arizona and Alabama. Illinois has been one of the worst offenders. By citing state constitutions the local courts bar appeal to the U.S. Supreme Court, since the courts of the several states normally have the last word with respect to the meaning of their own constitutions.

These rulings, however, are questionable—to say the least. They are vulnerable to legal attack by reason of the "reception statutes" adopted in most states at the time of their joining the Union. Reception statutes typically provide that the state legislature "receives" the common law of England as of the date of statehood and then delegates to the courts the authority to develop that law in accordance with the public policy of the state.

The reception statutes made clear that the legislature might retrieve what it had given to the courts. The legislature reserved to itself the authority to make (or reform) tort law. Many state courts respected this power of retrieval exercised by their legislatures. But others bowed to the political pressure of trial lawyers and consumer advocates and struck down much of the retrieval legislation as unconstitutional.

What can proponents of tort reform do to stem this tide of rampant judicial activism? Amending state constitutions is an arduous process, seldom employed, that normally requires ratification by a supermajority of the legislature and the electorate.

Another remedy might lie in the federal courts. The U.S. Constitution, Article 4, Section 4, guarantees to "every State in this Union a Republican Form of Government." While rarely litigated, this provision may well apply to judicial usurpation of the unquestioned process of the executive branch.

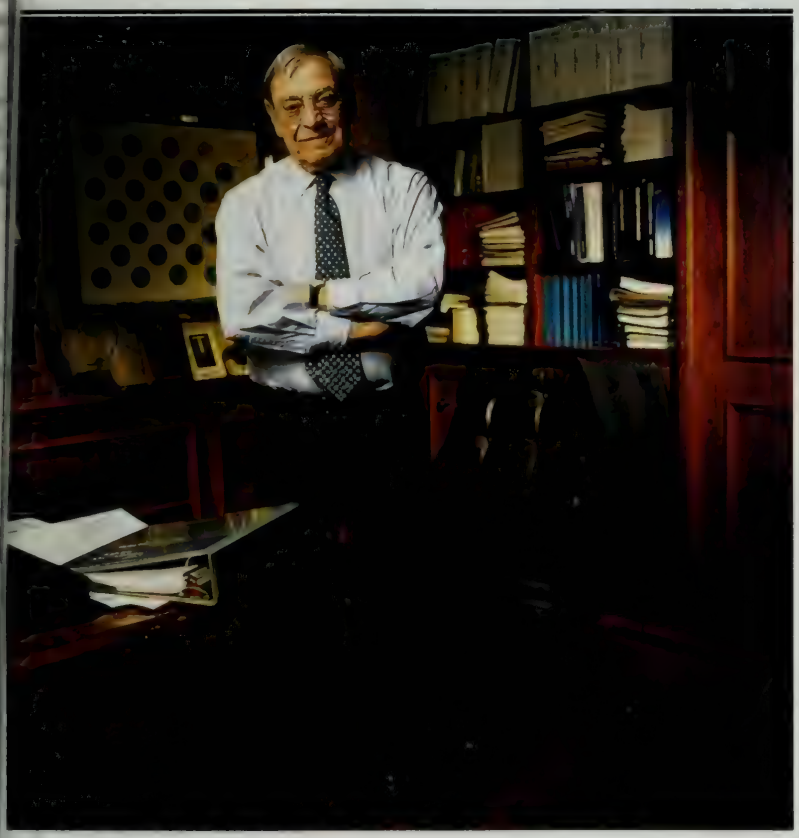
Courts in those 44 states have arrogated to themselves the power to make tort law that is directly at odds with the will of the American people. ■

James D. Zirin is a senior partner in the New York law firm of Brown & Wood.

or 22 years Mitchell Fromstein has reigned supreme Manpower. The last few years have been a disaster r the company. Is the board finally waking up?

Time to go?

y Phyllis Berman and Adrienne Sanders



Mitchell Fromstein, now 70, has played a role at Manpower for 46 years.

Has he stayed too long at the party?

How long do chief executives at most large U.S. companies remain in the corner suite? About seven years, according to executive search firm Korn/Ferry International. That makes Mitchell Fromstein, 70, something of a phenomenon. He's been at the helm of Manpower Inc. for 22 years, and working for the temp-staffing outfit for 46 years. Though the Milwaukee-born, onetime ad copywriter owns only 1.1% of the shares, he has long ruled almost unopposed.

In this era of downsizing and outsourcing Manpower has grown from a small start to revenues of $8.4 billion with 3,000 offices in 50 countries that place 2 million temporary workers in multiple jobs each year. On any given day, a quarter of a million of those are out on assignment.

Manpower started by supplying blue-collar workers on a part-time basis, but Fromstein was early in seeing that the demand for part-time clerical workers would grow.

But maybe Fromstein has stayed on too long.

At least one of his recent actions has seemed highly arbitrary. Last July he abruptly ousted his heir apparent, the chief of Manpower's $5 billion European operation, Jon F. Chait. Fromstein then moved control of Chait's group from Brussels to the home office in Milwaukee, and put it under Jeffrey Joerres, 39. Chait's mistake? He had offended Michael Grunelius, an old Fromstein colleague and head of the French division that accounts for 30% of worldwide sales.

In all this, not a peep from the board, which timidly rubber-stamps just about anything Fromstein does.

The board should be asking questions. Last year Switzerland's Adecco edged out Manpower as the world's largest temporary employment agency. While the overall market for temps is growing in the U.S. at more than 15% a year, Manpower's year-end 1998 U.S. revenues are expected to grow only 7%.

Manpower shareholders were shocked, as was the board, when second-quarter earnings plummeted and sent Manpower's stock down 29%, to $28 per share, in a single day. Shares now trade at $22, close to a four-year low, and at less than half the May 1998 high of $45.75.

Fromstein blames Wall Street for his troubles. "I won't play Wall Street's games just to get the stock moving," he tells Forbes.

As for the earnings surprise? Fromstein has two alibis: The French government repealed tax credits that encouraged the hiring of temps for low-skilled jobs. Fromstein called it a "short-term profit falloff that came suddenly."

The second alibi? Some of the earnings weakness was the result of cost overruns and delays on a new computer system that would—with luck—tie together all of Manpower's offices, from Malaysia to Manhattan. "It's been long in development," concedes Fromstein, "but it will do anything you want it to." The new system should ultimately enable Manpower to quote a single price to customers who need temps all over the globe.

His two alibis ignore some basic facts: Though bosses aren't expected to be computer experts, Fromstein did

Where is the power in Manpower?

Company	Total revenue ($mil)	Operating income ($mil)	Operating margin	EBITDA margin	IT as a percentage of revenue*
Adecco	$9,125	$383	4.2%	4.9%	15%-20%
Manpower	8,359	221	2.6	3.3	10
Olsten Corp.	4,431	66	1.5	3.0	less than 10
Randstad Holding	4,220	230	5.5	7.4	20
Kelly Services	4,005	140	3.5	4.2	less than 10
Vedior	3,479	160	4.6	5.4	15
Interim Services	1,788	123	6.9	9.3	40
Volt Information Sciences	1,750	66	3.8	5.0	less than 10
Robert Half International	1,683	202	12.0	13.3	15
Modis Professional Services	1,587	162	10.2	12.3	70

Figures based on trailing 12 month data. *BT Alex. Brown estimates.

Source: BT Alex. Brown Inc.

Mitchell Fromstein claims that technical staffing accounts for 20% of Manpower's sales. The real figure is probably just half that. Six of his competitors get far more revenues from that business.

make the final decision to proceed with the customized system, which has already eaten an estimated $115 million, with no end in sight.

Fromstein's excuses also neglect to explain why Manpower lost its international first-place position to Adecco. It was in large part because Fromstein missed the greatest growth market of all—the demand for information technology temps, a market that is growing at 25% a year. Manpower gets only 10% of its revenues from technical staffing, as against nearly twice as much for competitor Adecco. Not only Adecco, but specialists like Metamor Worldwide and Modis Professional Services, have aced Manpower in this booming business. Fromstein plays down this setback: "We've done this consciously," he claims. "The jury is still out on how long the IT sec[tor] will continue to grow. Besides, [it] is very difficult to find skilled [...] employees. And the demand for sk[ills] keeps changing."

If that's not rationalization we do [not] know what is.

So why hasn't there been a pe[ople] from the nine-man board? Cronyis[m]. All but one, including a former fra[n]chisee, are long-term comrades. Tw[o] board members, including Newt[on] Minow, a former Federal Commu[ni]cations Commission chairman, we[nt] to the University of Wisconsin wi[th] Fromstein. Another board member[,] lawyer, helped Fromstein climb [to] power at the company 22 years ago[.]

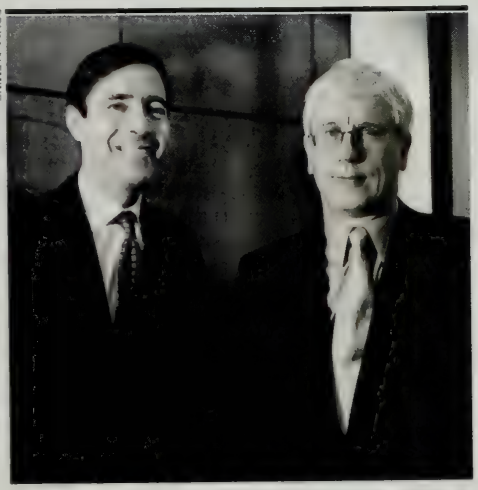
It was surprising that the board s[tood] quietly by when Fromstein edged o[ut] Jon Chait. Chait joined the compa[ny] after serving as Fromstein's lawy[er] during the battle with Blue Arrow, [a] British firm that took over Manpow[er] briefly in 1987.

After reassurances from boar[d] members about his future, in 199[9] Chait agreed to head most of it[s]

ternational operations, including Europe. Although ostensibly answering to Chait, in reality Grunelius continued to operate France autonomously—as he had done for the past 40 years. During the succeeding two years Chait opened 70 offices in Italy and expanded into Spain and Sweden, capitalizing on recent laws that allowed significant temporary employment for the first time in those countries.

Chait's mistake was tangling with Fromstein and his battle-hardened Frenchman. When the French government announced last January that it would reduce a subsidy benefiting employers of low-wage workers—including temp agencies—the boss of Manpower's French business was apparently taken by surprise. "It became clear to me that there was need for a change at Manpower France," says Chait.

Chait was planning to return to the U.S., and needed a strong manager to bring France into line. He chose John Sharkey, the former head of Saatchi & Saatchi in the U.K. who also managed Margaret Thatcher's election campaign in the mid-Eighties. Chait demanded that Grunelius report to Sharkey. Grunelius objected. Chait backed his new hire. Fromstein pushed the board to support Grunelius, and Chait and Sharkey resigned. Fromstein must have been relieved. That left him with no apparent successor.



BRUCE FLEMING

Jon Chait and his short-lived hire, John Sharkey

The heir apparent and his successor are out.

"It just didn't feel right to have France reporting to a new guy," is Fromstein's rationale for overruling his heir apparent.

If nothing else to date has awakened Manpower's directors from their slumber, this should: Compare Manpower's operating margins, at 2.6%, with Adecco's, at 4.2%, or Modis', at 10.2%.

Maybe the board is finally stirring. Three months ago John R. Walter, formerly president and chief operating officer of AT&T, joined the Manpower board. Is he a potential stopgap successor to Fromstein? Some shareholders think so. Even Fromstein seems to realize that his time has come. Says he: "I'm putting pressure on myself to replace myself."

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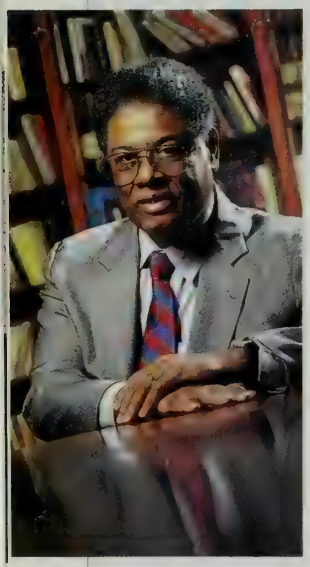
ENGINE OFF-HIGHWAY INDUSTRIAL LEASING

By Thomas Sowell

Safety and wealth



Society pays a heavy price because liberals tend to seek "solutions" instead of thinking in terms of trade-offs.

A RECENT EDITORIAL in the *Washington Post* pointed out that, while thousands have been killed by Hurricane Mitch in Central America, it has been a quarter of a century since a hurricane killed more than a hundred people in the United States. Moreover, the editorial writer understands why: We are a wealthier country, which leads to a better ability to forecast hurricanes and to cope with them through sturdier buildings, mass evacuations and more and better medical care.

In short, wealth is a great factor in improved safety. This is too often completely overlooked by safety zealots who make grandiloquent pronouncements that "whatever it costs, it is worth it if it saves just one human life." Sacrificing wealth means sacrificing safety and ultimately lives. Whether particular regulations save more lives directly than they cost indirectly by sacrificing or inhibiting the production of wealth is an empirical question. But it is a question that is seldom asked.

Despite the *Washington Post* editorial's promising beginning, it never reaches the point of seeing a need to reconsider safety crusades that sacrifice wealth. Instead, the *Post* simply urges sending money to Central America and reducing "global warming" in order to reduce hurricanes.

The staggering costs of the "global warming" crusade—both directly in expenditures and indirectly in perhaps even larger sacrifices of wealth due to draconian restrictions on production—are painfully ironic in view of the *Post*'s acknowledgment that wealth greatly enhances safety.

None of this gets to the deeper questions about the empirical evidence on which the "global warming" crusade is based. Weather satellite data tell a very different story from that told by computer models or by temperature readings taken near cities that give off their own heat.

The scientist who set up the American weather satellite system, Dr. S. Fred Singer, has expressed great skepticism as to whether the globe has in fact gotten any warmer in recent years. The temperature readings from the weather satellites don't show it. The careful analysis of data from a variety of sources by Dr. Singer in his book *Hot Talk, Cold Science* is in sharp contrast to the hysterical simplicities of the "global warming" zealots and politicians. Similar conclusions are explained on a layman's level in Thomas G. Moore's recent book, *Climate of Fear*—a book praised by Edward Teller and by a past president of the American Academy of Sciences, among others.

The larger point is that safety involves trade-offs, like everything else. Unfortunately, liberals tend not to think in terms of trade-offs but instead to seek "solutions." Nowhere is that more true than in issues involving safety.

Mandatory safety devices on guns are one of the latest safety crusades. Most firearms already have safety devices of one sort or another but safety zealots are pushing for still more such devices to be imposed on all. It never seems to occur to them that more safety in one respect can mean less safety in other respects.

One of the latest high-tech ideas is to have the gun owner wear a wristband that gives off electronic signals, without which the gun will not fire. That way children or others who find the gun cannot use it.

The other side of the coin is that this and other new safety devices increase dangers by making the gun less accessible when it is needed in self-defense. When there is an armed intruder in your home in the middle of the night, you cannot call "time out" while you go look for your wristband. There also may not be time to undo all the other new safety devices that third parties have chosen to impose by law.

A recent study at the University of Chicago showed that armed citizens have a major impact in reducing violent crime. Those who are constantly seeking to disarm law-abiding citizens shut their eyes completely to such evidence. Crusaders do not want to be confused by cost-benefit analysis.

Safety crusades create political dangers as well. No matter what policy we follow on any safety issue, nothing will ever be completely safe. This means that there will always be a blank check for a never-ending expansion of laws and regulations, unless and until we begin weighing one thing against another. ■

Dr. Thomas Sowell is an economist and a senior fellow at the Hoover Institution in Stanford, Calif.

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Thanks to that IMF transfusion, South Korea's economy is looking healthier. Appearances are deceiving.

Symptom therapy

By Neil Weinberg

AP/WIDE WORLD

Hyundai founder Chung Ju Yung, right, seals tourism deal with North Korea's Kim Jong Il

The biggest chaebol, like its brethren, hasn't quit chasing grand whims.

THE KOREAN STOCK MARKET l
doubled since June. Korea's curr
account surplus will approach $
billion in 1998, while its currer
reserves are up from $7 billion l
last year to a record $46 billion. T
won has gained 60% against t
dollar, and three-year domestic c
porate bond rates are down fr
30% to 7.8%.

But the celebrating is a bit prem
ture. Korea is like a patient reviv
by a blood transfusion by docto
who do nothing to stop the hemo
rhaging. The transfusion came a
$58 billion IMF-led loan package.

A big part of the gain in the Ba
of Korea's reserves has come fro
delaying $22 billion in short-ter
foreign debt payments. The count
will need every penny it can accum
late from the trade surplus becau
some $36 billion in foreign debt w
come due next year. The curre
account surplus has been impressi
enough, but it has been achieve
only through painful sacrifice: IM
imposed austerity will this ye
depress domestic demand 25% an
GDP around 7%, leading to a 22
drop in imports, estimates Pariba
Asia Equity.

The basic organic problems remai
untreated. The financial system is
mess, and the country's *chaebol*, c
corporate conglomerates, still spraw
inefficiently across industries.

The government is supposed t
recapitalize the banking system wit
a $51 billion injection of publi
funds plus $15 billion in new ban
debt and equity. The total comes t
$66 billion—not much against non
performing loans running anywher
from $110 billion to $220 billion.

That's 33% of GDP, minimum
versus the 3% of GDP it cost the U.S
to mop up its savings and loans mes
a decade ago. Instead of folding
weak banks, the government is merg
ing many of the weak with the weak
"With few exceptions the financia
profiles of banks mentioned [as
merger candidates] are too similar to
benefit from mergers," Standard &
Poor's wrote in June.

Worse, Korea's grossly overlever-
aged *chaebol* (average debt ratio
520%) are doing almost nothing to
cut debt. Except for a handful of

Was it a *midlife crisis?*

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well-publicized deals, like Hansol Paper's $1 billion sale of its newsprint paper operations, asset sales are dragging. Among the big five *chaebol*—Hyundai, Samsung, Daewoo, LG and SK—there's not even a pretense of deleveraging.

Their debt levels have actually been rising, thanks to deals like Hyundai's recent purchase of bankrupt Kia Motors—a transaction so laden with debt that Ford Motor, already a big Kia shareholder, showed little interest. The big five *chaebol* have sold $28 billion in domestic bonds this year, hogging 77% of the bond market.

While President Kim Dae Jung applies intense pressure on these corporate behemoths to swap businesses, they are, in effect, thumbing their noses at the government's and the IMF's efforts to create a more open, competitive economy. President Kim recently held a dinner to honor *chaebol* heads who had helped restructure. Not a single chief of the five biggest groups was there. Kim apparently could find nothing to honor them for.

"All the interest [in investing in Korea] has been disappointed. People are starting to look to invest in Japan instead."

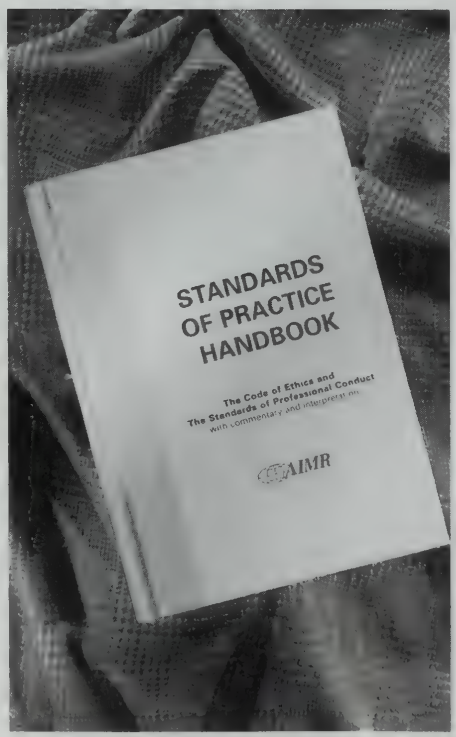
"We need to cut off some legs of the octopuses, but the [big five] *chaebol* owners aren't willing to do it voluntarily," complains Kim Tae-Dong, senior presidential secretary for policy and planning. "In the U.S. shareholders might vote them out. In Korea they dominate with complex cross-shareholdings, so what can we do?"

The government is pushing *chaebol*-owned Hyundai Electronics and LG Semiconductor to merge. Close plants or sell some to foreigners? Heaven forbid. The new entity would still have a 400% debt ratio, versus 50% or less for Taiwanese rivals.

"Two bad companies don't ma a good one," says Keunmo Lee, he of research at KEB Salomon Sm Barney. "If I were grading Kore corporate restructuring, I'd give it F." The vast majority of efforts foreign firms to get a foothold ha been resisted or fallen apart ov price, job cuts and control issues.

"In the West creditors come in a say, 'You have no hope of making profit, so you're done,' " says Geor Goundry, an analyst at ABN Am Asia in Seoul. "In Korea they ke the walking-dead walking. Mark forces still aren't determining values

Is the IMF-bought breathing roo being used to throw good mon after bad? It sure looks that way. "A the interest [in investing in Kore has been disappointed," says Flori Budde, a principal at McKinsey Co. in Seoul. "People are starting look to invest in Japan instead Seoul's first-class hotel rooms, on jammed with deal-seeking foreign ers, fetch 30% or so less than the did a year ago.



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Period	CREF Stock Account	CREF Bond Market Account	CREF Social Choice Account	CREF Global Equities Account	CREF Equity Index Account	CREF Growth Account
	Star Rating/Number of Domestic Equity Accounts Rated	Star Rating/Number of Fixed Income Accounts Rated	Star Rating/Number of Domestic Equity Accounts Rated	Star Rating/Number of International Equity Accounts Rated	Star Rating/Number of Domestic Equity Accounts Rated	Star Rating/Number of Domestic Equity Accounts Rated
3-Year	4/2,262	5/748	4/2,262	4/490	5/2,262	5/2,262
5-Year	4/1,515	5/525	4/1,515	4/286	N/A	N/A
10-Year	4/769	N/A	N/A	N/A	N/A	N/A

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{After 32 years,

In the Quest for High Performance, Sc

By John Cafar

If you're an automotive designer, there isn't a more challenging or, ultimately, a more rewarding assignment than to be given the opportunity

{ The new lighter, stiffer hardtop takes Corvette performance capabilities to the ultimate degree. }

to create the next Corvette.® It's not something we take lightly. Great automotive design and Corvette have gone together since the very first one in 1953. It's about heritage, passion, tradition and the future, all at once. And the fact that any new Corvette design must speak loudly of the performance potential that lies underneath the skin. The new Corvette hardtop would certainly have to measure up to some pretty lofty standards.

Our Future Must Start With Our Past. Our past is really important to the Corvette Design Team. Each and every day, we live and breathe Corvette history. Legends like the Corvette SS. The original Sting Ray. The '63 Coupe. The Mako Shark. It's all there for us to see whenever we turn a corner in the halls of our design studios. From memorable street cars and significant race cars to forward-looking concept cars and design studies, we feel the

{ Detailed aerodynamics: Like all Corvette models,

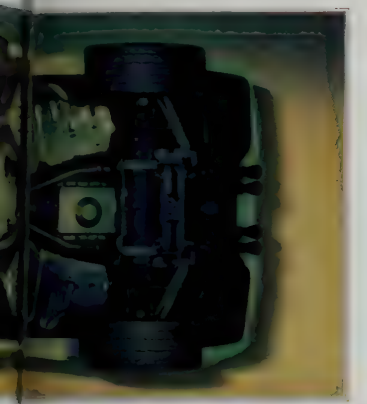
presence of every Corvette that eve
before. Which is exactly why it's such a
to have the opportunity to design the
Because as designers, we don't just
new Corvette, we get a chance to mak

T h e N e x t C o r v

op Corvette is back.}

nes You Have to Get Back to the Basics.

ner, Corvette



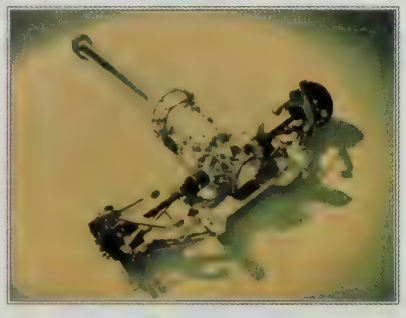
ce is designed to manage air flow and reduce drag.}

Hardtop Is the Essence of Corvette.

e era of the competition Grand Sport, a of configuration has always meant the e performance Corvette, and the new is no exception. To accentuate the

purity of the shape, we created a minimal "greenhouse," getting back to the functional simplicity of all sports cars. By doing this, we enhanced the taut, muscular fenders, elegant wheel openings and aggressive wheels. We feel the look emphasizes the true spirit of the car. The net impact we were going for is one of no-nonsense power and pure performance; in other words, the very essence of what Corvette is all about.

For Purists, It's the Ultimate Corvette. We didn't want this Corvette to lack for anything. After all, this was the first fixed-roof Corvette in 32 years, so it had to have all the performance ingredients that make the new convertible and coupe so special to begin with. The Corvette Design Team went to work from there. Starting with its lighter-weight structure consisting of a strong perimeter frame combined with a center backbone (the C5 was already over four times stiffer than the previous generation), the new hardtop configuration is even more rigid for enhanced road "feel" and overall solidity. From there, this new Corvette gets all the right stuff: all-aluminum 5.7-liter V8 with sequential-port fuel-injection, 345 horsepower at 5600 rpm, 350 lb.-ft. of torque at 4400 rpm and electronic "drive-by-wire" throttle control. Close-ratio six-speed, rear-mounted manual transmission. Limited slip differential. Speed-sensitive, variable-effort, rack-and-pinion power steering. Huge 4-wheel, ventilated power disc brakes. 17"x 8.5" aluminum wheels in the front, 18"x 9.5" in the rear with Goodyear Eagle F1 GS high-performance, extended-mobility tires. Lightweight aluminum suspension pieces and standard Z51 Performance Handling Package (which includes stiffer springs, larger stabilizers and larger mono tube shocks). In short, there's enough performance hardware here to please



{ The rear-mounted transmission in Corvette contributes to the excellent weight distribution and responsive performance. }

even the most hard-core enthusiasts. And that's what it's all about, really. Performance for performance sake. For purists, it is easy to see why the hardtop is the ultimate Corvette.

Work? It's a Labor of Love. To say everyone here on the Corvette Design Team loves these cars is an understatement. We drive them. We collect them. We even race them. We're Corvette enthusiasts through and through. That's why we love the new hardtop. It represents everything Corvette stands for: Power. Passion. Advanced Technology. Performance. And The Future. Drive one and you'll see what we mean.

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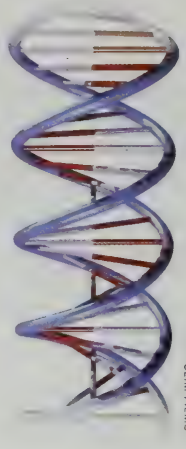
t e

By Peter Huber

Herod II



SLIM FILMS

SOME TIME NEXT YEAR an embryo will be cloned from a human adult. It will be implanted in the uterus of a young woman selected with some care for her wide pelvis and robust health. A son will be born at the dawn of the third millennium. Neither angels nor news wires are likely to herald the birth. The father—an Asian plutocrat, South American kleptocrat or aging Western rock star—won't be looking for publicity. He will be looking for everlasting life.

In the last few months the technological annunciations have become quite clear. English scientists recently finished the first complete decoding of the genes of a multicelled animal, a roundworm. The decoding of the human genome will be completed within a few years, much earlier than expected only a short while ago. Researchers funded by Geron, a Menlo Park, Calif. company, have grown stem cells from human embryos and fetuses into neurons, muscle cells and other tissues. Medicine in general is being reduced to chemistry; reproductive medicine won't be the exception. December brought reports from Japan of the cloning of cows—the fourth mammal to be copied. What is biotechnically possible with a sheep or cow is readily possible with a man.

Genetic technology is headed down the same cost curve as silicon technology, just some decades behind it. Moving mountains of material or energy is inherently expensive. Moving electrons, atoms and molecules around is inherently cheap, once you learn the trick. Fifty years ago the world didn't have a single transistor; today it has trillions. Thirty years ago medicine had little idea how to turn off the biochemical chain reaction we call cancer. When they arrived, the first chemotherapies for cancer were clumsy and expensive. But recent advances have come fast. The clone wizards are now learning to turn on what the oncologists are learning to turn off. The key breakthroughs have already occurred; all the rest now is detail. It will be worked out terribly fast.

Cloning technology cannot be contained by pulpit or commission. The raw materials are ubiquitous; the processing tools are quite simple and inexpensive. Proliferation of the other technology of the atom—the nuclear bomb—has been limited mainly by the difficulty of extracting the key raw material, which is very rare. Enriching uranium requires an enormous capital and technological infrastructure. Replicating cellular protein doesn't.

The political incentives to block bioatomic power are far weaker, too. The specter of the double helix is not the specter of Hiroshima. There will be no global outcry on the cold and frosty morning that Saddam II draws his first breath in the bassinet of an ultraprivate hospital nestled somewhere in the hills above Zurich.

And if not Zurich, then Stockholm or Buenos Aires. New York won't be far behind. Harvard's legal academics are already busily explaining why self-procreation is as fundamental a right as abortion, which is, under current readings of the Constitution, very fundamental indeed. A society that not only accepts but openly admires the no-dad and two-dad family will find a way to get comfortable with the all-dad child.

The bio-industrial complex will copiously replicate the genes of only the rich and the powerful, for the first few rounds anyway, until the costs begin to fall. The politically correct among us insist that genes don't actually determine anything much at all. But as identical-twin studies already confirm, genes in fact determine a lot, including many basic facets of character. In all likelihood, the new progeny of old genes will turn out as self-absorbed and manipulative as their biological fathers.

Issuing as they will from the not-at-all meek or mild, the first generation of clone-kids will inherit, along with their DNA, a rich legacy of economic and social power. They are likely to do very well for themselves, if not for society.

There was a day when even kings might put their hope and faith in a child of humble origin. In our narcissistic times, it will be Herod the Great who travels afar to gaze upon a biological copy of himself. ■

Peter Huber, a senior fellow of the Manhattan Institute, is the author of *Law and Disorder in Cyberspace* (Oxford Press, 1997). E-mail address: PeterWHuber@MSN.com Home page: http://www.phuber.com/huber/home.html

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In which a wise scientist demolishes some of my most cherished clichés.

A dyed-in-the-wool skeptic

By Dyan Machan

I HAVE LUNCHED with a wide variety of folk in pursuit of my FORBES assignment, but never with anyone quite as contrarian as Ralph Gomory, president of New York-based Alfred P. Sloan Foundation. Every piece of accepted wisdom that I threw at him, he threw right back at me.

Like this: Aren't Americans working harder than ever? Seems true but is not, he says.

I lob another: Knowledge has no boundaries? Wrong, he says. There are things we know are unknowable.

None of this, mind you, is in a confrontational tone. A widely regarded scientist, Gomory, at 69, is polite and courteous. But he has trouble tolerating imprecision. An innovative thinker, he led all IBM research labs as director from 1970 to 1987. His independent streak helped him champion such innovations as the first relational data bases, and the now industry standard one-device memory cell.

When Gomory disputes a point, he leans forward, narrowing his eyes as if to peer into a microscope. He then locks into your eyes. And politely demolishes whatever you just said.

When our waiter arrived at our table at the Rainbow Room, high atop New York's GE Building, I expected Gomory to contradict the waiter when he announced the specials.

The much-vaunted American work ethic: "People have done research to try and show that individuals are working longer and harder," he says. "The best data show that professionals are working somewhat longer than, say, 20 years ago, but just a few hours more per week. However, people in lower echelons are working less, so the average hasn't changed."

Gomory doesn't dispute th people do feel more frazzled the days, but it isn't work that's getting them. It's that they have to jugg work with domestic chores in today typical two-earner household.

Gomory: "It's not that one ind vidual is working longer so much that two people are now doing thr jobs. In the past, one person did th working job and the other ot brought up the family, took care the home, built a social network anything else you want to describe

The Sloan Foundation's Gomory illuminating the knowable.

at category. It was never recognized a job. But it was.

"Now both parties come home om work and keep working. That's hy there's a general perception of erworking."

Studying two-career families is one f the things the Sloan Foundation oes. Its focus is on people, not the oor, but everyday people.

It seemed to me the individuals nvolved must like the new way or hey would find a new alternative.

Gomory replies that that was just ny assumption. "It may turn out that

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everybody really loves this, and it is good for the kids," he says. "The point is I don't think we know."

Suppose it turns out people don't like it?

"If I could solve this," Gomory replies, "I'd say what you really need is real part-time employment for one of the parties. Not a dead-end part-time job," he says.

Almost forgetting food, I challenge him: Don't we have that? I think of mothers I know who work part-time.

"Yes," he says, "but many times, part-time turns into full-time at half pay. So the work place has not evolved. It tends to be all or nothing, except for some trimming around the edges. Nor has the support structure for the home adapted.

"For instance: When does an electrician come? From 8 a.m. to 5 p.m. Nobody is home."

We move on to another common assumption about American life. Gomory: "Today there's an assumption that we have a shortage of computer programmers. I'm skeptical."

At this point, his skepticism doesn't surprise me. He went on: "Late in the 1980s we had a projected shortage of scientists and engineers. At our foundation, every second proposal came in with the preamble 'because of the shortage of scientists and engineers we need to. . . .'

"Oddly enough, the shortage never materialized. Because it was an invention. Some researchers at a science foundation did some modeling and projected supply and demand. Very questionable work, but it suited someone's agenda."

Gomory presses his hands against his ears as if to shut out noise. "Ideas that suit someone's agenda are often taken up with great vigor and become widely accepted," he sighs.

For example? Gomory says the assumption about the shortage of computer people suits a certain type of employer.

"The immigration bill that recently passed in Congress was intended at least in part to address this 'shortage.' Well, we at the Sloan Foundation say, 'gee, this is interesting, but is it true?' We heard a presentation from one of the major proponents of the shortage and found it completely unconvincing.

Instead of accepting information as fact, we ought to be taught that it is only a fragment of knowledge on the edge of the unknown.

"At the same time, we are getting e-mail from 40-year-old programmers who say, 'Hey, no one will even give us an interview. They just want young people who will work 24 hours a day.'"

Sipping his water, our skeptical Gomory pauses to add, "I think it would help to know what's really going on."

I figure this is one Gomory will agree with: Don't we need to do something drastic about our messed-up educational system?

He doesn't. "I'm not going to give you the usual stuff," he says, provocatively. "European high school graduates are generally two years ahead of ours in what they learn. It's been this way for years. And you know what? It doesn't seem to matter. It could be an advantage to us. In many countries around the world, there is much more respect paid to education and teachers than we show here. In fact, we tolerate disrespect and contempt for teachers," he says.

Isn't that awful? Not entirely, says Gomory. Americans respect those who do, not those who teach, a
that helps fuel American entr
preneurship.

Gomory ventures that high
educated high school kids m
be less important to the natio
than having more kids with
higher education. The Slo
Foundation has invested $2
million in what it calls Asy
chronous Learning Network
where people with families ar
jobs can get advanced trainin
or a university degree over th
Internet.

So far we've talked abou
Sloan projects dealing with ve
practical topics. But the four
dation is also deep into a project t
discover the limits of what's knowr
unknown and unknowable. Wha
good is that?

"We grow up thinking more i
known than actually is known," h
replies. For example he cite
Herodotus, the source for much c
what we know about ancien
Greece. "Instead of acceptin
[Herodotus'] information as fact
we ought to be taught that it is
fragment of knowledge on the edg
of the unknown. That pushes us t
look further."

Now we have it. Of course—
Gomory is a genuine skeptic. Not
cynic. A skeptic. Ancient Greek
skeptics believed that all knowledg
is uncertain. That led them to keep
asking questions rather than becom
ing silenced by certainty. That's how
we discovered the world is round
and that the sun doesn't revolve
around the earth.

We shouldn't be too certain.
Gomory says, that everything is
knowable. "Weather is only some-
what predictable. It can be changed
with a sneeze!" Who doesn't know
that the weather people are always
wrong more than a few days ahead.

Another? "The fluctuation of stock
prices. Too many interacting unpre-
dictable factors. There are times
when it pays to give up on what we
can't discover and concentrate on
what we can."

Plates cleared. I went out into the
cold air of Manhattan thinking that
this guy had contradicted just about
everything I said. ■

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NO PLANE NO GAIN

▶ up & COMERS

Designer Barry Kieselstein-Cord has turned art into a hard-edged business.

Crafty

PHOTOGRAPHS BY CHRIS WAIT

Portrait of an artist: Kieselstein-Cord has been a bold innovator in design—and in company building.

MANY ARTISTS ARE CONSUMED with their creativity—and pretty soft-headed when it comes to business.

Not Barry Kieselstein-Cord, 50. You might have seen some of his popular jewelry designs—the quarter moon, the elaborate scenes on the flip side of belt buckles, the curling alligator. But you may not have known that his business sense is as highly developed as his artistic talent.

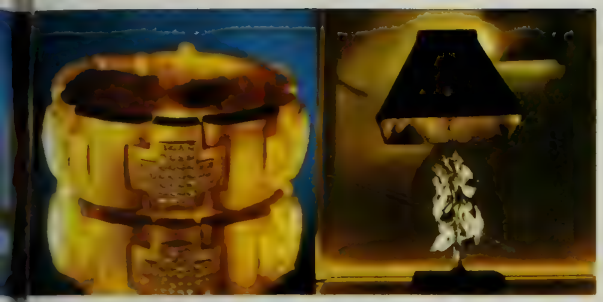
It starts with control. Even after a quarter-century, Kieselstein-Cord still supervises every design and finished product in his midtown Manhattan studio. He has to: Considering what his creations retail for—up to $1,800 for a belt with silver buckle and $11,000 for an evening bag with 18-karat gold components—rejections are costly. They waste expensive labor and delay delivery time.

He trains video cameras on his artisans to keep those precious metals and gems from walking out the door. Do employees resent it? Kieselstein-Cord says his workers asked for the surveillance as a way of protecting their profit sharing.

He's also fiercely protective of his designs. When he found out someone was knocking off his popular sterling Winchester belt buckle for 12 bucks, Kieselstein-Cord took him to court. The case went all the way to the Second Circuit Court of Appeals in New York—and Kieselstein-Cord won, becoming the first designer to win the right to copyright a functional object as art. Ever since, he has launched 30 or more lawsuits a year; he claims he has never yet lost a case. He's even enlisted his 78-year-old mother in the cause. "She's great at spotting fakes at flea markets," he explains.

With a business that brought in about $50 million last year in wholesale and retail revenue, he can afford lawyers. To prevent the cheapening of his products, he limits distribution to the luxury market—selling through Bergdorf Goodman, Neiman Marcus, Saks and a handful of Barry Kieselstein-Cord stores in the U.S.

This guy even shows signs of turning himself into a fashion conglomerate. Soon he'll be expanding to London and Paris. He hasn't begun to exploit the upscale markets in Asia and Latin America; that will probably await a pickup



he designs are distinctive—so is the production process, which an take a year, from rough sketches to finished product: "When I tarted out, I didn't know enough to know what I couldn't do."

in those depressed markets. He says he will bring out a mass-market fragrance in a year or so, in a glass bottle he plans to design. And sometime in the year 2000, designer watches in a range of metals from stainless steel to platinum.

Oh yes, and furniture. He's unveiling a new collection this spring. Preproduction prices are steep—about $1,500 for lamps and $15,000 for tables with cast-bronze alligators set on marble tops. Monumental works, they're less home furnishings than sculptures.

And something of a return to his past. "I started out carving giant totem poles when I was an 8-year-old kid on Long Island." One of them was stolen. After getting over his grief and rage, he realized there might just be a market for his work. –T.P. ■

Judy George has turned furniture buying into a fun mind game.

What color is your personality?

By Mary Summers

EVERY SALES-DRIVEN organization needs a gimmick. For Judy George, who's in the furniture business, it's a pop quiz for potential customers—specifically, a 10-minute, 20-question decorating personality profile. The idea is to group you into one of four categories—so-called Visionary, Artisan, Idealist and Adventurer—and steer you to the "appropriate" couch, drapes, dining room table and so on.

George, the 58-year-old founder and chief executive of Boston-based Domain Home Fashions, claims the questionnaire is firmly rooted in science, deriving from Carl Jung's nine personality archetypes and the Enneagram—a metaphysical diagram that's the subject of a popular book about personality and motivation.

A more cynical view is that it's a marketing ploy aimed at getting people more emotionally involved in the act of shopping for furniture. Women, who call the shots in about 90% of all furniture purchases, enjoy taking personality tests—as every fashion magazine knows so well.

Gimmicks like the test help explain why Domain Home has grown into a 23-store chain spread among seven East Coast states, and why George expects to earn about $2 million on revenues of $55 million in 1998. Sales at the privately held company are running $450 per square foot, more than twice the industry average.

"You've got to find a way to talk to the consumer, to take their fears away," says George, who is no slouch at marketing herself. In 1975 she applied for a job as director of interior design at the furniture superstore Hamilton's. Denied an interview, she borrowed $7,800 from her husband to pay a pilot to fly around company headquarters with a banner that read, "Hire Judy George—she'll make you millions." Hamilton's president first threatened to have her arrested, then offered her the job.

When Hamilton's was bought by

So, how long have you had this aversion to buying furniture, hmmm? Domain's Judy George.

PHOTOGRAPHS BY ROCKY THIES

the now-defunct Scandinavian Design, George stayed on and became president. The company relied on personality tests to reduce employee turnover. George figured you could use a similar quiz to shape customer preferences—and increase sales.

After losing her job at Scandinavian Design in 1985 over a disagreement with the board over strategy, George spent three months interviewing consumers about buying furniture. Not surprisingly, most people said they hated it: Their anxiety over shelling out for big-ticket items was compounded by lousy service.

George managed to wangle about $3 million from three venture capital firms in exchange for 70% of her company and opened her first two stores in September 1986. She trained salespeople to "read" customers by taking note of how they dress and asking them about their tastes.

She soon ran into what Freud called the "Reality Principle." She spent a fortune—$80 per square foot—lavishly decorating her stores, nearly twice what her budget allowed. Instead of assuring the potential customers, the decor intimidated them. "We were really struggling at the start," George says with uncharacteristic understatement.

After the first five years, sales grew to $18 million, but the company racked up almost $2 million in losses. George recruited a new chief operating officer from outside the furniture business—who advised her to slice decorating costs in half, display cheaper merchandise and open stores in clusters, cutting down on storage costs.

In 1995 she began test-marketing the quiz in her stores. Most people had fun taking the test. It seemed especially helpful to married couples who disagreed about everything: Differences of taste, salespeople argued, could be reconciled—even mixed and matched.

"We've transformed the furniture industry," says George. That's a tall statement. But she's certainly made it more exciting to shop. ■

For our Up & Comers, 1998 was an amazing year. FORBES takes a look back at some of the most promising.

Where are they now?

By Leigh Gallagher

STEVEN BOLLONIS

In June, Bradley Jacobs' heavy equipment rental chain, United Rentals, was a $300 million company. He brashly predicted it would be in the billions within a few years ("The earth mover," *June 1*). Try a few months.

In September, United Rentals acquired U.S. Rentals, the nation's second-largest equipment-rental chain, to become number one. It is now on track to end 1998 with revenues of $1.5 billion. Jacobs' 22% stake in the company he cofounded in September 1997 is now worth $374 million.

Alex Lightman thanked us effusively for pointing out why his idea for 3-D Internet games tied to current movies wouldn't work ("Caught in the Web," *Mar. 23*): He was producing expensive projects on spec. After studio contracts stopped coming in, Lightman left Hollyworlds in September, out $300,000 of his own cash.

Now he's onto his next idea—a low earth orbit satellite consor-

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tium using high-speed Internet telephony to zap voice, Web and data signals worldwide. He faces one small hurdle: He will need $600 million to develop and launch the satellites.

"Aristotle said, 'Give me a lever and a place to stand and I'll move the world,'" he explains. Sounds pretty cocky. But it takes a lot of presumption to make a real entrepreneur.

LAYNE KENNEDY

Sonus Corp.'s Brandon Dawson ("Founding your own company is the best revenge," *Jan. 26*) has had a busy year with his new hearing-aid business. He launched a franchise program, a private-label line of hearing aids, and acquired 37 new hearing-aid clinics, increasing his number of storefronts by 40% and boosting sales from $22 million to $35 million in fiscal 1998. But losses have widened, from $1.7 million to $4.5 million—and the stock has dropped by 60%, to a recent $3.75. Dawson blames the costs of expansion. Maybe it's time to slow down.

ALAN LEVENSON

Tough times for Allan Wolfe and Voxel Corp., the company he founded to create 3-D holograms of internal organs to help doctors diagnose injuries ("Out of focus," *May 18*). Wolfe was running out of cash and was tied up in a contract dispute with a key supplier. Things only got worse: In May an arbitration panel ruled that Voxel had to pay the supplier $2 million for breach of contract; in June Voxel filed for Chapter 11—then Chapter 7 liquidation; in September its stock was delisted. But all was not lost. Wireless Netcom, a holding company, has signed an agreement to acquire Voxel's name and technology for $5 million Shareholders will be lucky to get a refund of 12 cents per share.

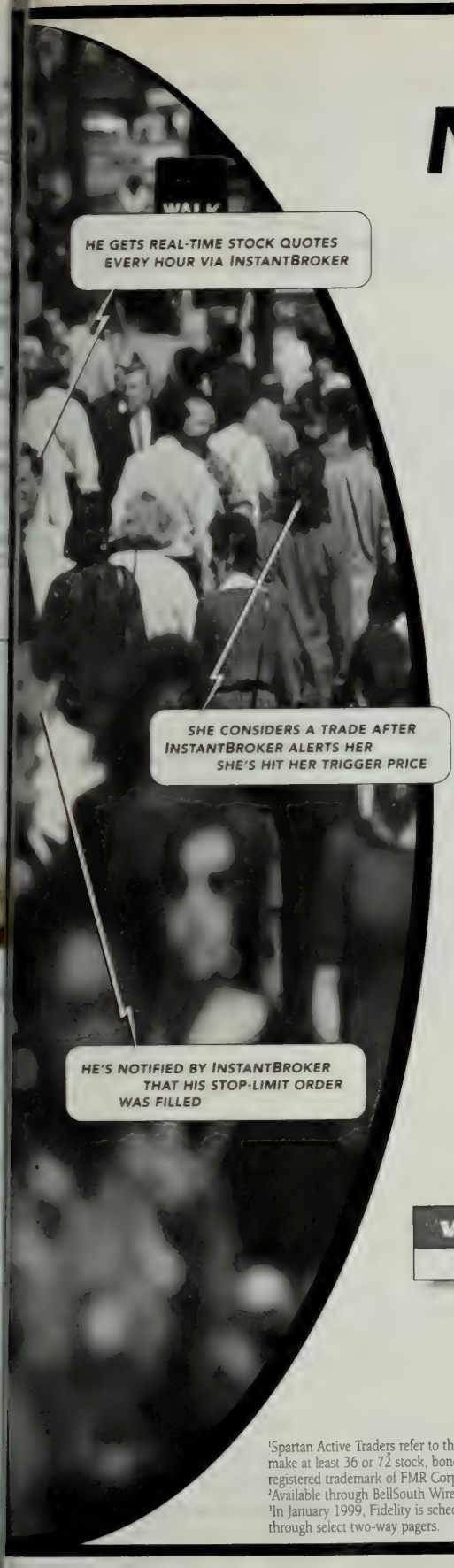
Ethan Allen's chief executive, Farooq Kathwari, is takin a lesson from the Gap. Kathwari ("Do as I do," *Apr. 6*) is betting that young parents will lavish as much on the offspring's furniture as they do on their own. He recently announced plans for E.A. Kids by Ethan Allen, a line of furnitur and accessories for tots and kids available next summer. The stuff isn't cheap—up to $1,500 for an armoire and $900 for a crib. But that strategy has worke for the Gap, which found that its customer enjoy dressing up their kids almost as much as they enjoy dressing themselves up. Ethan Allen is on a roll: Revenues ended the fiscal year up 19%, at $680 million; operating income soared 39%, to $120 million. Th kids' room stuff is one of the ways Kathwari hopes to keep those numbers on their upward curve.

SHONNA VALESKA

We thought Pacific Sunwear of California, the teen clothing retailer, was pretty smart because it spent so much time listening to its fashion-conscious customers ("Cool it," *Nov. 2*). It must have had an attention lapse: For the first time in three years, same-store sales slipped, by 1.6% in November. Turns out PacSun missed warning signs that wide-legged pants, the bellwether of hip for most of 1998, were out. In a matter of days, the stock dove nearly eight points, to $16.50. More bad news to come: PacSun says its young men's apparel business—60% of total sales—could be adversely affected through the spring. That's, like, *waaay* uncool.

KEITH DANNEMILLER/SABA

Upstart Mexico City movie chain Cinemex was one of the heroes of the newly liberated market ("Thugs, bureaucrats and mice," *May 4*). A 1992 ruling that reversed 40 years of government control of Mexican cinema allowed three Harvard M.B.A.s to start what became the city's sec-



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[2]Available through BellSouth Wireless Data paging service.
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68458

ond-largest movie chain (1997 revenues: $35 million). Their Cinemex added 54 new screens in 1998 and plans 70 more this year.

But the Mexican government seems unable to keep its nose out of private business. Under the guise of protecting national culture, legislators last month passed a rule that 10% of screen time be devoted to Mexican films. Bad news, because Mexicans love Hollywood fare; but it's a lot better than the proposed 30% mandate—plus a 5% tax on box office receipts. Cinemex Chief Executive Miguel Angel Dávila led the campaign against that law. His next battle—overturning Mexico's restrictions on dubbing foreign films.

DAVID FIELDS

The booming interest in small business has given a boost to Miles Spencer and *MoneyHunt*, his half-hour program where entrepreneurs get ten minutes to make their pitch before the experts ("You bet your life," *June 1*). Spencer has doubled production, to 26 shows, this year; 76% of U.S. households can now tune in to what we called venture capital's *Gong Show*. Spencer is busy building a brand. *MoneyHunt* is going global, having made its Japanese debut in December; this spring the show will air in Italy, Germany, the U.K. and Spain. The first book from Spencer and cohost Cliff Ennico hits the bookstores in September. But Spencer hopes his real gold mine is in the thousands of business plans from hopeful entrepreneurs that his company is sitting on. Law of averages say there must be a few winners in it.

Perhaps carried away a bit, we compared David Getson, the 26-year-old cofounder of *Icon*, with the legendary founder of Time Inc. ("Impossible dream," *May 4*). Getson's idea was interesting—a cool rag with an intellectual spin. But cash problems kept *Icon* from attracting more readers: Circulation inched up only 15%, to 175,000 last year—far short of the 300,000 needed to break even. And while ad revenues doubled, to about $1.4 million, prospects still don't look good for this would-be Henry Luce. ■

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GREATER PHOENIX
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Sun Micro's effort to brew up a broad assault on Microsoft shows signs of strain.

Java in jeopardy

By Daniel Lyons

MARK RICHARDS

Sun's Alan Baratz
Java czar.

IN THREE YEARS OF STRUGGLE Sun Microsystems, Inc. has persuaded dozens of rivals to form a united front to crack Microsoft's Windows monopoly. The key weapon in this self-interested holy war has been Java, a Sun-designed software standard.

Software written in Java promises to run on any chip-based device, from mainframes to cell phones. Customers could lash together incompatible gear. Programmers, now forced to create several versions for rival systems, could produce a single, one-size-fits-all program. That might render Windows superfluous—softwaremakers would no longer be beholden to Microsoft for design details.

The next few months could determine whether Java fragments into incompatible approaches, obliterating any threat to Windows.

Feuding factions have begun to pursue rival Java designs. A dozen or more companies, including Hewlett-Packard, are promoting their own clones of the Java programming language, which could destabilize it as a unified platform. A klatch of smaller players have begun setting their own technical standards for how they use Java; Sun is trying to block them.

IBM is agitating, too, pressing Sun for a stronger say in Java's future. Microsoft—which gave Java a boost by licensing it, only to end up getting sued by Sun over charges it was wrongfully tweaking the design—is beginning to make noises about defecting to Java clones.

All of this comes as Sun releases its third major version of Java in three years, a speedier and more stable package dubbed Java 2. "It's the first version that is rock solid," says Alan Baratz, president of Sun's Java division.

Java started out handling nifty little tasks like the full-motion flamin logo on a Web page ad. No more serious uses are pursue Saab Cars USA, Inc. deploye Java to let salesmen in show rooms access data on financin and features from a myriad incompatible back-office systen and view them with simpl Web-browser software.

But Java is as much abou tackling Microsoft as it is abou customers. Sun spends upward of $200 million a year, plu image capital, brewing Java. I has licensed rights to the would be "Windows killer" to almos 200 companies, bringing together mortal enemies—IBM Oracle, Novell—that share it desire to see Microsoft humbled

But the anti-Microsoft alliance i shaky. Sun invented Java and insists on final say over its design; its balky partners say Java will proliferate only if Sun relinquishes control.

"Java is bigger than any one company," says Patricia Sueltz, general manager of Java software at IBM, which has 3,000 people working on Java—three times as many as Sun has.

She says Java should be an entirely "open" standard with as many contributors as possible taking part in the design. She questions Sun's motives. "Are they doing this for the purpose of optimizing Sun as a hardware com-

DOUG ROSS

Java blues

Sun's effort to shatter Microsoft Windows has been a fractious affair from the start.

- **January 1996** Sun ships Java 1.0.
- **March 1996** Microsoft licenses Java from Sun.
- **Fall 1996** Microsoft and Sun squabble over Sun's Java specifications.
- **February 1997** Sun ships Java 1.1.
- **October 1997** Professor Timothy

ny, or are they doing it for e good of all?" she says.

Sun's Baratz suggests that M is the one with the hidden genda, pushing Java in direc- ons that would give IBM an dvantage. "What is IBM's real otive?" he asks.

Loosening Sun's grip on Java sks letting it break up into onflicting versions, Baratz says. va would become Unix edux; Windows raced past nix software chiefly because nix fragmented into slightly ncompatible designs. "There as to be one company in harge of the standard," the un executive says.

But Java is fragmenting nyway. One of the first Java lones, called Kaffe, was created by Transvirtual Technologies, nc., a startup in Berkeley, Calif., ust a month after Java made its debut in January 1996. HP's Java clone, called Chai, is becoming a popular alternative to "real" Java for use in "embedded systems"—the innards that run printers, cell phones, VCRs and other gadgets. HP has signed Siemens AG and Integrated Systems, Inc., whose software is used in phone switches made by Lucent and Nortel and digital cameras from Casio.

"About 50% of our licensees previously had plans with Sun," says James Bell, general manager of HP's embedded software operation. In specialized embedded systems, Chai works better than Java, he says. "We're way ahead of Sun." HP is also cheaper, in some cases by 50%.

HP created Chai by taking Sun's published specification for Java and developing an imitation that mimics Java without using any of Sun's code. This "clean room" method lets HP sell Chai without paying a penny to Sun. "We have no reason to license their product," Bell says.

MICHAEL HOH

Hewlett-Packard's James Bell
"We're way ahead of Sun."

Last month, Sun tried to bring the clones back into the fold by loosening some licensing policies; three of them signed up, but others say Sun hasn't done enough to win them over.

Sun, with annual sales in the $10 billion range, collects only about $180 million a year in fees and royalties from Java followers—less than it spends to promote the standard. To Sun, the money matters less than maintaining technical discipline. Companies that license Java must pass tests to ensure their products are compatible with Sun's standards.

Yet Sun often is far less expert than its licensees in some areas. Schlumberger Ltd.'s smart-card unit created a Java-based smart card and turned it over to Sun—which then added to it in ways that weren't always to Schlumberger's liking.

Elsewhere, a rebel cadre of companies use Java for real-time applications. Their programs run manufacturing gear that must perform a certain operation at exactly the right time. Ordinary Java can't do that very well. These developers have found ways to augment Java so it can.

The rebels, with names like NewMonics and Cyberonix, are forming their own technical committee to set a standard for real-time Java. Miffed about it, Sun has made veiled comments about infringements on its "intellectual property."

Naturally Microsoft is enjoying Sun's dilemma. In November a federal judge sided with Sun in ordering Microsoft to reverse changes it made in Java code in violation of Sun's licensing terms; Microsoft is appealing. It may drop Java in favor of a clone.

"Sun makes it more and more attractive for us" to do that, warns Charles Fitzgerald, manager of Microsoft's Java efforts. Sun's Baratz concedes "there is absolutely a risk of fragmentation among Java users," but says Sun can keep its fractious coalition together.

Perhaps, but the anti-Microsoft coalition shows definite signs of splintering. "Sun has the real-time group biting at one ankle, the [HP-led] embedded-systems group biting at the other, and their enterprise partners"—such as IBM and Novell—"chewing on their butt," says analyst Tim Sloane of Aberdeen Group in Boston.

Wilkinson founds Transvirtual Technologies in Berkeley, Calif., to sell his Java clone, which he calls Kaffe.

•October 1997 Sun sues Microsoft for making unapproved changes in Java code.

•March 1998 HP announces Chai, its Java clone. Microsoft signs a license to use Chai.

•Fall 1998 IBM and Novell encourage Sun to give up control of the Java standard. Sun balks.

•November 1998 13 companies form the Real-Time Java Working Group, create their own standards body.

•November 1998 Judge rules Microsoft must change code to comply with Sun standard.

•December 1998 Sun ships Java 2.

By Stephen Manes

Compute while you're driving

I'M RIDING in a borrowed Ford Explorer. "Booger!" I cry, waking the system with an affectionate nickname. "What time is it?"

"Eleven thirty-two," a computer-generated female voice replies. I'm impressed. My $2 stick-on dashboard clock can't do that.

For just $1,297 more, plus installation, Clarion's new AutoPC can do more tricks at your vocal bidding, from playing CDs and radio programs to recording voice memos and retrieving entries from an electronic address book. Because it really is a computer running a version of Microsoft's Windows CE operating system, it can do cleverer things, too, but most of them involve optional extras. As with a traditional computer, the peripherals can end up costing more than the box.

A six-CD changer runs $399; a global positioning system locator, $250; a service to help you out in a pinch based on your GPS reading, $12 to $15 a month; maps on CD-ROM, $150 for each of seven regional disks; a cradle that lets the AutoPC's address book dial a cell phone, $299; a paging device that can receive news and traffic warnings along with brief e-mail and text pages, $170 plus monthly fees; a unit that hooks up to your car's powertrain computer and can keep track of how fast your kid drove the car on prom night or use the paging service to unlock the doors when you leave the keys inside, $399. Installation is extra for most of these goodies.

The base unit I tried had the CD changer, GPS module and map software but none of the other stuff, which was still undergoing final tweaks. The system fits into a standard dashboard cutout and includes a radio, a CD-ROM drive that can play music disks, two backup batteries and a slot for removable "compact flash" memory.

The removable faceplate has a color LCD display, a telephone-style keypad and a joystick-like pointing device but no internal power, so you can't take your address book with you outside the car. A separately mounted microphone responds to voice input; there's even a special button to cut through "On the Road Again" when Willie and the band are too loud for the system to hear you.

Is this the return of "My Mother the Car"? The recorded and synthesized voices that respond to yours are decidedly female, and there's something rather odd about talking to your vehicle. But speech is definitely the interface of the future for drivers who prefer to keep their eyes on the road and their hands on the wheel.

In my brief experience, it worked pretty well, even with the window open, in part because the vocabulary of commands is restricted. To adjust the volume, you can say only "quiet," "normal" or "loud"; you can customize the preset levels, but fine-tuning the volume means poking the front panel. You can tell the CD player "next" or "previous" to move through the tracks, but it takes a finger on a button to jump to a particular one. I guarantee kids will learn to holler "next!" to change the channel every time parents revisit their youth with oldies stations.

There are other Version 1.0 omissions. AutoPC can speak directions from the map program, but unlike some competitive products it can't use the GPS information to bark "Turn right!" as you approach an intersection. The system displayed typical map-software

Clarion AutoPC **Talks and listens while you drive.**

Stephen Manes, a computer industry journalist since 19[illegible]3, is the coauthor of *Gates*, a biography of Microsoft's chairman.

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errors: On one try, reaching the street where we were supposedly located would have required a long detour or off-road driving through a fence, and the suggested route involved an express lane available only to carpoolers. The program does not display maps.

The 256-by-64 pixel screen is brighter than the ones on most notebook computers, since it has a car battery for power, but it displays only a little information at a time. There's no way to change the big fonts or the way the address book displays city, state and ZIP entries on separate screens instead of all at once. The consequence is a lot of navigating through menus and submenus, complicated by the way slight errors in pressing the head of the joystick can send you to unexpected places. At least there's a "back" button to get you out of trouble.

Versions with bigger, sharper screens are likely to arrive as this product evolves. Microsoft expects that more and better software will be developed for this platform and that units will eventually be built into new cars. Some of the limitations of the current model may be addressed by future upgrades to the operating system.

The base unit is already on sale on the West Coast. By mid-January it should be available nationwide, along with the peripherals. But considering that AutoPC costs more than my car is worth, I'm sticking to the ancient radio and Velcro-backed clock. They don't give me any back talk, and they can't crash unless the car does. ■

Password junk

MODERN LIFE is password hell. No longer do we need codes just for cash machines, voice mail and computer access. On the Web, passwords have now proliferated so maddeningly that you need a secret handshake just to peek at Microsoft's support site, the one with the bug fixes that sometimes work. Sure, the magic word is stored in a "cookie" on your hard drive so that you don't have to remember it—until the disk dies or you try to access the site from a portable machine.

At one point I owned a computer that forgot its own password and refused to let me in; don't even get me started on that one. But I knew password madness had reached new heights when Delta Air Lines demanded one to redeem a mileage award. To claim two free electronic tickets, I needed to dial a particular 800 number and punch in my wife's account number and PIN.

PIN? What PIN? The frequent-flyer desk insisted Susan had chosen one. But I had probably done the choosing, months ago when the PIN seemed to be just for account lookups on the Web. Now I couldn't find it, and the new policy was no PIN, no fly. The argument that ticketing us would be no security risk whatsoever since we'd have to show ID at the airport fell on deaf ears. The only alternative was to fork over $75 per ticket, the fee for "rapid redemption."

The PIN was just four digits. For $150, I figured a couple of guesses were worth a try. With junk passwords like these, I generally use a telephone keypad to make up some word related to the site. This one was probably DELT. Or FREQ. Or FLYR. But on my fourth try the Web site proclaimed that I'd exceeded the number of permissible attempts and refused to accept more.

When I finally found the PIN at the back of a file cabinet, it was too late. The system had locked me out, and I was in password hell. Extrication involved many hours of human intervention over the phone and at ticket counters. Delta lost money. I lost my temper.

A moral for marketers and computer system designers: Don't overdo this password stuff, particularly when it's mostly in your interests instead of your customers'. Competitors with friendlier sites may be just a click away.

The moral for users is a little more complicated. Alas, it's not safe to use one password for all your affairs; that increases the chance some hacker will invade your brokerage account and wire $50,000 to Panama.

But several programs can encrypt all your password data and pass it to Web sites. The likes of Password Manager and Password Keeper are shareware, so you can try them for free. Or you can create a word processing file listing all your passwords and account numbers and massage it with whatever encryption program you have lying around. Either way, you have to memorize just one big password.

Periodically print out the unencrypted data and scrawl the master password there instead of on a sticky note in your drawer. Then stow the page in your safe deposit box.

Is Delta back in my good graces? Not quite. When I got back to the Web site, up came this message: "Error: No PIN Chosen. We're sorry, but you must establish a PIN in order to display information for your SkyMiles account."

I'm picking 5623. The mnemonic? "Lame." –S.M. ■

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James W. Michaels, feather ruffler

By William Baldwin

Not counting the story you are reading, this issue of FORBES was edited by the same man who edited the Aug. 1, 1961 issue and every one in between. What sort of a person would be able to do the same job for 37 years? I think Jim's secret is that he inherited the novelty-seeking gene.

Here's a guy who, though a klutz with a telephone, became one of the earliest and heaviest users of the Internet in the building; who took up scuba diving at 73; who recently wrote a virtual postcard in Hindi; who is endlessly curious. A friend describes landing with him in a dusty Mexican town when their van broke down. While waiting for a mechanic to repair the car, Jim became fascinated with the junkyard next door—turning over parts, looking under engines. So it was, that with endless curiosity about the cogs inside corporations and Wall Street, he reinvented business journalism and reinvented the magazine every few years.

SIDE LINES

Our "New" Editor

...rnest, shirtsleeved and owl- ...dividual shown below expos- ...g over the early draft of a ... story will be found listed ...pc on the adjoining page un- ...e title of Editor. For James Walker) Michaels the title "...as new with this issue, but ...ichaels could hardly be de- ...as "new" to FORBES. ...aels, just turned 40, is an ...n-the-ranks veteran of the ...that has ...this mag- ...from a ...tion of ...in 1954 ...st 350,000 ...He is a ...brusk and ...nes ab- ...inded up- ...ew York- ...who has ...most of his ...life as a ...g journal- ...the ink ...dry on ...ward Col- ...ploma, he volunteered in ...an ambulance driver for ...ately sponsored American FORBES content or form ...he is brumming with plans ...en and streamline FORBES' ...tools to cope with the inc ...fascinating, but increasin... ...plex business world of t... A fair taste of what Mic ...in mind is contained in t... The bare statistics of Cu... ...lishing Co.'s woes were ...known in the trade, but th... ...story behind it has seld... ...told. F... ...its lead ...for thi... "What's ...Curtis?" ...ed the ... ...ing on ... ...chaels ...Associat... Jean Ra... ...ner to ... ...the hea... ...accumul... ...ing on ... ...publishi... ...pany. ...against ...Miss Ra... ...ner, a de... ...ly softspoken young Englis... ...made scores of telephone ... ...numerous interviews and

Ejected from ROTC for his poor eyesight, Jim signed up as an ambulance driver and served with the British Army in the Burma campaign. When World War II was over, he landed a job at United Press, then scored a coup with the first wire story on the assassination of Gandhi. In 1954 he took a job writing about mutual funds for a narrowly focused magazine with a circulation of 130,000. It was so obscure that you had to spell the name when leaving phone messages, F-O-R-B-E-S.

In those days the business and economics beat, even at a prestigious newspaper, was anything but prestigious. It was a dumping ground for drunks and sportswriters who had lost it. Business magazines were either bland and unquestioning or long-winded and pretentious. They never ruffled feathers.

Jim had a novel idea. Why not speak to the reader as if you were speaking to a friend on a street corner? Brevity helps. Judgments help. If the chairman of the company is a nincompoop, say so—if there's evidence to prove it.

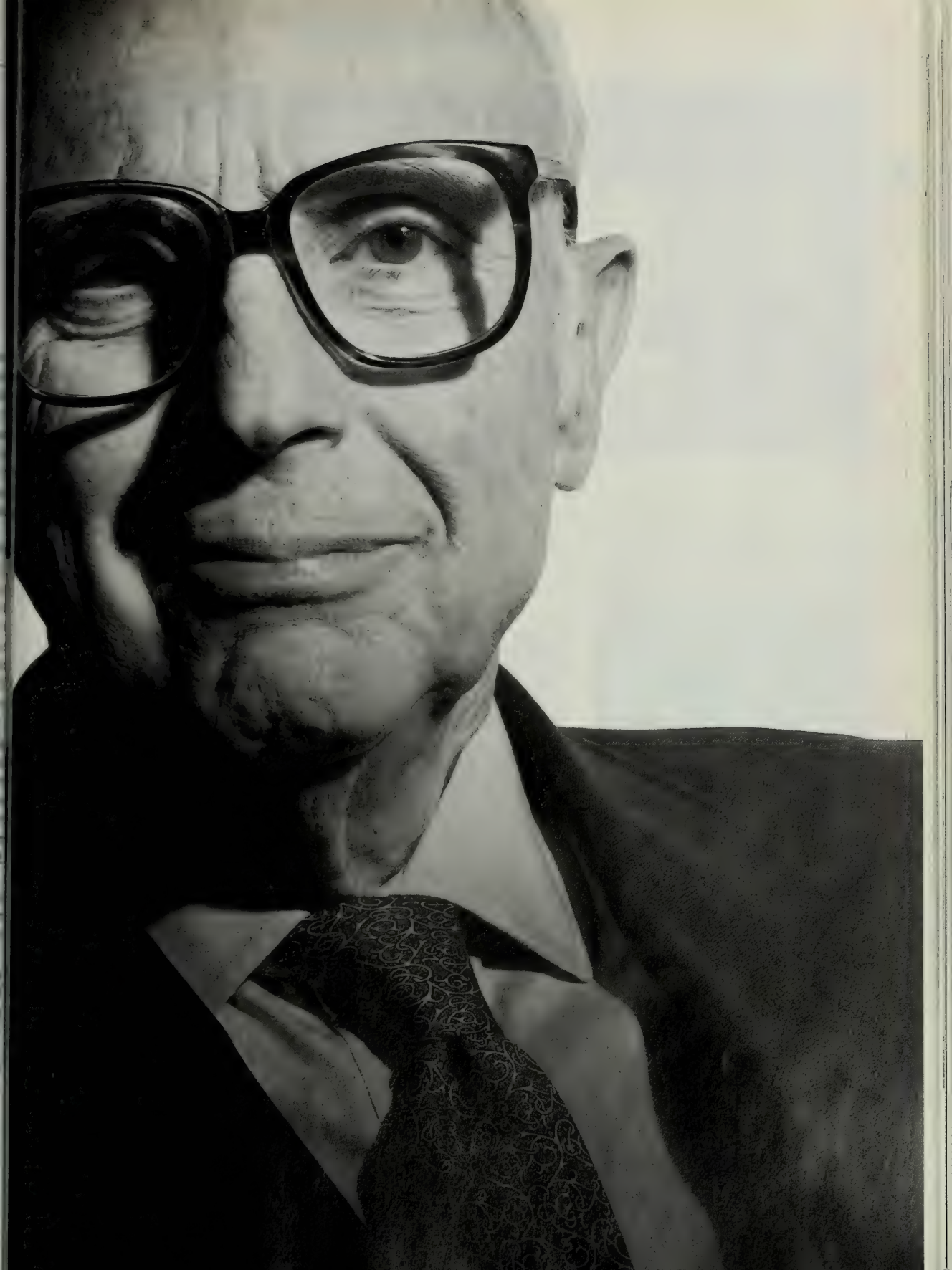
It isn't just underperforming executives who squirm with Jim as editor. Reporters don't necessarily like his style. Understand that, their pretensions to the contrary, most journalists are beholden to people other than the readers they are supposed to serve. They are always trying to flatter their sources, get access to bigwigs or impress the Pulitzer judges. Jim serves no god but the almighty reader. He once flew into a rage when copy slipped by him containing a highfalutin phrase in it, because readers might be put off. "But Mr. Michaels, that page has already transmitted," a fact checker said. He stalked back into his office shouting over his shoulder: "Untransmit it!"

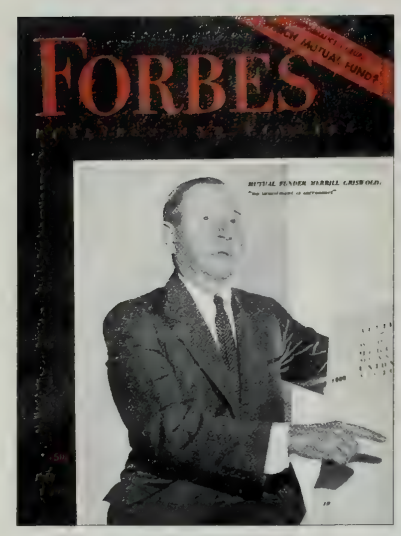
The bluntness bothers some journalists, especially the ones trained in the "objective" style of newspaper writing. One writer handed in a story describing a new financial product and questioning rather mildly whether it was good for investors. He turned pale when he saw the headline Jim slapped on the article: "THE DUMBEST IDEA IN YEARS." There's one source who never talked to us again.

Tact is not Jim's strong suit. A young reporter, hired as a raw recruit and trained to be a mutual fund writer, went to Jim to announce that he would be joining a competing publication to start up fund coverage there. Jim brushed him aside with this: "In the land of the blind, the one-eyed man is king."

Bad reporting gets the same blunt treatment from Jim as bad corporate management. Note typed into an unquestioning story: "This isn't reporting. THIS IS STENOGRAPHY." Into a boring one: "Congratulations! This is a masterful job of interviewing an interesting and colorful man and getting precisely one quote. CALL HIM AGAIN FRCHRISSAKE!!!!" Into one citing a statistic utterly lacking a context: "HOW'S YOUR WIFE?" You scratch your head over that one, and then an old-timer explains that this is a Michaelsism that means, "Compared to what?"

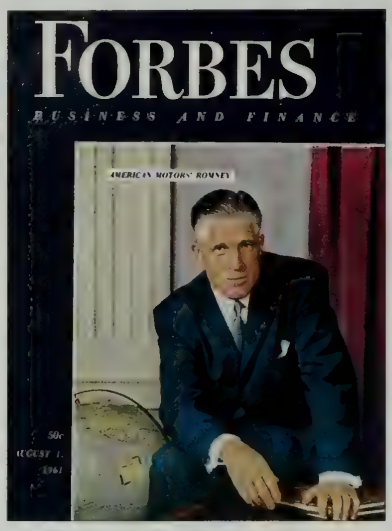
Evidently feather-ruffling journalism pays off: Jim Michaels has 785,000 subscribers now. He is about to quit his magazine job for a novel one developing FORBES' book, newsletter and television products. The pages that follow depict his journalistic exploits so far.





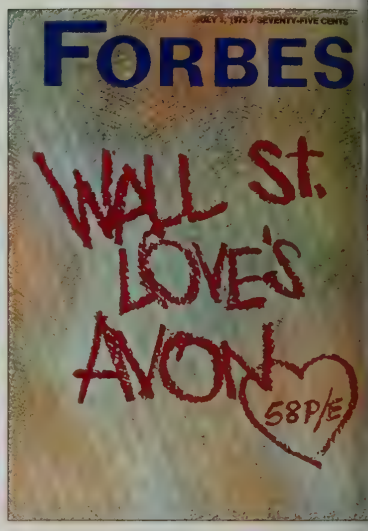
July 1, 1956

Over strenuous objections from the industry, Jim Michaels started rating mutual funds in this issue 42 years ago.



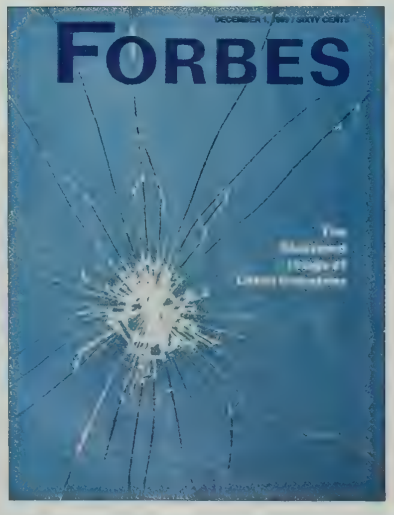
Aug. 1, 1961

This issue featuring George Romney of American Motors was the first with Jim Michaels as editor.



July 1, 1973

This Wall Street darling was trading at $130 when Forbes deflated it; a year later it was at $30.



Dec. 1, 1969

When conglomerates were riding high on Wall Street, Forbes punctured one of the most famous of them, Litton Industries.

Memo to President Carter

Inflation Is Now Too Serious A Matter To Leave To The Economists

When President-elect Carter asks his economists to come up with a program that will both reduce unemployment and lower inflation, the economists, if they are candid, will reply: We don't know how.

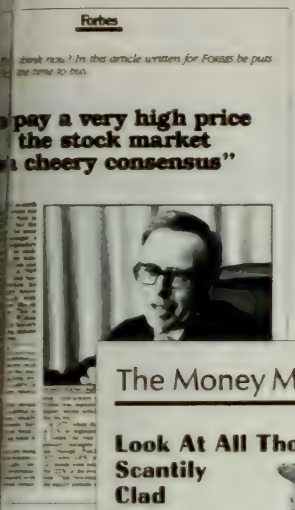
In the following essay, David Warsh suggests some very important reasons why the economists don't know and can't know. This is a wide-ranging article covering some 1,000 years and dealing with such assorted subjects as Spanish treasure fleets, the Industrial Revolution, capitalism, Marxism, Social Security, post-World War I German reparations—with Adam Smith, Karl Marx, John Maynard Keynes and, last, but not least, the late Clark Gable. It's a long essay, but an engrossing one and written in a language that even very learned economists can understand.

It is the end result of some 18 months of dogged labor—evenings, weekends, vacations, by David Warsh, 32, and his colleague, Lawrence Minard, 26. The two young journalists conclude that our distinguished economists are on the wrong track because they are analyzing the 18th-century world, the virtually unmixed economy of Adam Smith, not the taxed-to-the-eyeballs world of the 20th century. Their tools may be ultramodern —computers and mathematical models —but the economists' basic vision is hopelessly out of date.

Watching a late movie on TV, Minard had a flash. He saw that the 35-year-old flick was more real-world than the one the economists were writing about. A movie may seem an odd place to study inflation, but when you read the article, you will see why it was quite appropriate. Our writers have come up with an entirely different way of looking at economics. Read the article and understand why we are suffering from rising prices and how they are bringing us benefits as well as troubles.

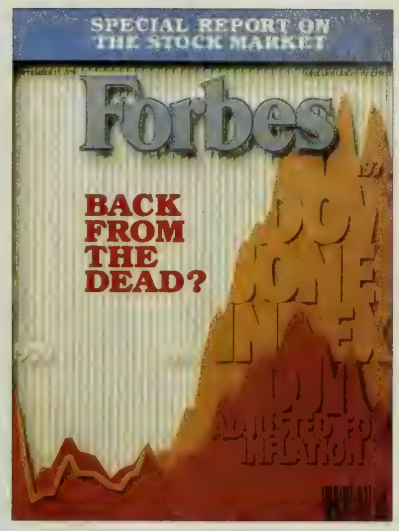
Nov. 15, 1976; May 23, 1983

The 1976 story, which explained the spiral of inflation, won Forbes' second Loeb award; in the 1983 piece, management guru Peter Drucker revived the extraordinary insights of the then-forgotten economist Joseph Schumpeter.



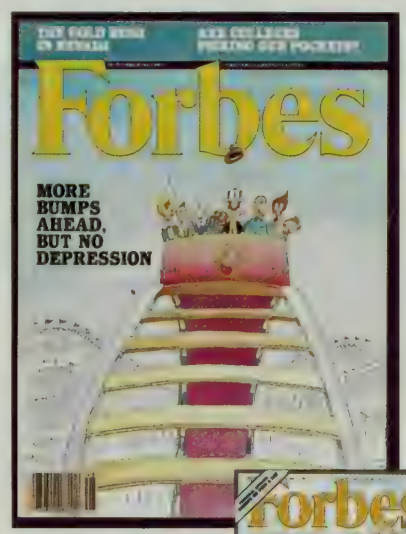
Nov. 1, 1974 (below); Aug. 6, 1979 (left); Sept. 17, 1979 (right)

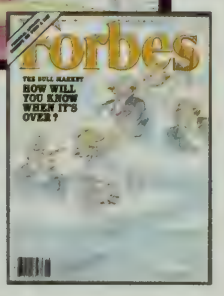
In a 1974 interview and again in a 1979 piece he wrote, Warren Buffett said stocks were cheap. The 1979 cover story reacted to a Business Week cover entitled "The Death of Equities."



y 16, 1984

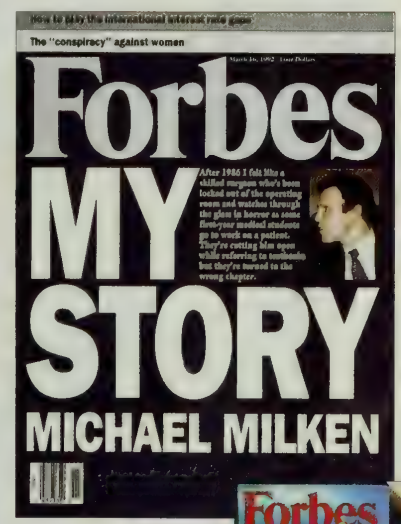
s exposé gave
Securities & Exchange
mmission a blueprint
going after stock promoter
bert Brennan.

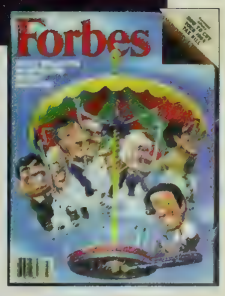




May 4, 1987 (right); Nov. 30, 1987

The May article talked about spotting a market top; the postcrash piece challenged the conventional wisdom.





Nov. 19, 1984 (right) and Mar. 16, 1992

Forbes was the first magazine to explain Milken's junk bond machine; eight years later Michaels got a unique jailhouse interview.

New York World-Telegram 2nd SPORTS FINAL

GANDHI ASSASSINATED

Soul of India Shot Down by Hindu Fanatic

d Courant

Mob Rules New Delhi After Day Of Slaughter U. S. Officials Armed

New York World-Telegram NIGHT

Gandhi Cremated, Civil War Feared

CLOCKWISE FROM UPPER LEFT: Jim Michaels' 1948 wire story on the assassination of Mahatma Gandhi; Michaels with intern Barbara Johnson in 1968; with Lyndon Johnson in the mid-1960s; with Steve Forbes aboard the Forbes *Highlander*; with Malcolm Forbes in 1989; accepting Loeb award for distinguished service to financial journalism, in 1972.

"I hugged all of them goodbye, then one little girl ran back and whispered, 'come back, ok?' "

ne Galvez, UPS Business Manager,
Intern at Chattanooga Human Services

ery year for the past thirty years, UPS has sent a growing number of managers on a unique sabbatical. They ve behind their families and day jobs to spend a month living in communities that need help. They build uses. Tend to the sick. Feed the hungry. Through the UPS Community Internship Program, they not only help their new mmunities, they help themselves. They broaden their perspectives. They learn. And in the end, it makes them better managers. ot to mention better people. To learn more about what we do in the communities we serve, visit us at www.community.ups.com.

1998 United Parcel Service of America, Inc.

Our Company of the Year decision was fairly easy: Pfizer—and no Viagra jokes, please.

Science &

By Scott Woolley

Viagra was just a warm-up. Pfizer Inc developed the most-talked-about drug of the decade, but there's lots more coming. Years of lavish R&D spending and vast changes in the science of drug discovery have pumped Pfizer's drug pipeline full to bursting. Pfizer is tantalizingly close to developing drugs to combat devastating illnesses: heart disease, schizophrenia and even some of the most lethal cancers—of the colon, breast and pancreas.

Its stable of 50-plus drugs, now in various stages of human trials, is probably the strongest in the industry. At least half a dozen look like blockbusters that might win approval in the next five years. Those hits alone could eventually amass sales of perhaps $10 billion a year. This would be on top of Pfizer's existing billion-dollar franchises of Norvasc (hypertension), Zoloft (depression) and Zithromax (infection).

Pfizer's chairman and chief executive, William C. Steere Jr., makes no secret that his goal is to topple Merck from the top slot in U.S. drug sales by the time he retires at age 65 in June 2001.

That will take some doing. Merck's annual drug sales are over a billion dollars higher than Pfizer's—and Merck isn't going to stop growing. Pfizer's rivals are fearsome, and laboratory advances can be ephemeral. Growth could be curbed by a backlash against soaring drug costs, which are driving much of the upswing in health care expenses.

Steere is secure in his conviction that Pfizer's research prowess gives it an unbeatable edge. "It's a high-risk, high-reward industry," he says, and it has "bifurcated into the haves and have-nots. It's all based on research."

savvy

Where rivals have frittered away energy on mergers and acquisitions and other distractions, Pfizer has intensified its spending in the lab.

Drug design used to be a food-fight strategy—throw dozens of chemicals into petri dishes and look for anything that sticks. Now it is a rifle shot. Scientists can isolate hidden genetic flaws that can be targeted by drugs. To sift out possible bullets, speedy robotic systems screen thousands of compounds in an hour.

That enables drug firms to spin out myriad incremental advances that keep profits humming, but also to chase after bigger game.

"We've learned more about cancer in the past five years than we learned in the previous hundred," says Pfizer's top cancer researcher, Michael Morin. He has four promising tumor-killers in human testing, and two more will go into trials every year for the foreseeable future. "Cancer could become a manageable disease, like diabetes," says Morin, whose father died of colon cancer three years ago. "This isn't pie in the sky."

Chairman William C. Steere Jr. **Reaping rewards from costly research.**

Research, however, is only half of what fuels Pfizer. The other half is marketing, the company's own genetic strength. Direct-to-consumer advertising of prescription drugs, forbidden for decades, has fed surging demand in the past five years. Wholesale drug revenues surpassed a record $81 billion in the U.S. in 1998, up 13% from the year before, and up more than 60% since 1994. That's the kind of growth that has propelled drug stocks to the forefront of this great bull market: Though only number 118 in revenues among the Forbes 500, Pfizer is number 8 in stock market capitalization.

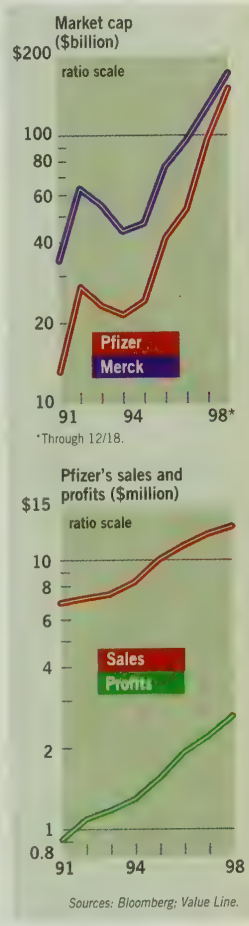
The marketing equation is simple: If patients primed by TV commercials ask doctors, swayed by sales visits, about drugs with compelling clinical trial results, lots of prescriptions will get written. It can cost $300 million or more to develop a drug; seven out of every ten that win federal approval fail to earn back what they cost. Smart marketing improves the odds.

At Pfizer, marketing infuses every aspect of drug development and delivery. Marketers, as much as researchers, dictate which drugs make it out of the lab. The salespeople have a heavy hand in guiding all clinical research, once the sole province of the guys in the white coats.

Talk about eye-catching advertising. After a fast start Viagra sales started to go limp. Moving fast, Pfizer signed a new spokesmodel: 75-year-old Republican artifact Bob Dole. He tried it, he liked it, he avers. Despite the slight cooling of sales, Viagra is on track to do $1.4 billion in 1999. Meanwhile, trials for women are under way.

Selling drugs is more complicated than selling, say, soap. You need to interest consumers, but first you must win over doctors. Though it ranks only fourth in worldwide drug sales, Pfizer deploys the largest sales force in the industry—5,400 marketers pushing free samples. Their ranks are filled with gung-ho former military men and women urged to ever greater efforts with the carrot-and-stick of hefty bonuses and multiple quotas.

Chasing Merck



Pfizer is nipping at Merck's heels, thanks to fast-growing sales and even faster-growing earnings.

Marketing is in Pfizer's bloodstream. Unlike some of his peers in the drug world, Bill Steere came up through the marketing ranks, rather than as a scientist. A Pfizer lifer, Steere started there out of college 40 years ago as a detail man—a salesman who "details" doctors on company wares.

But it was his love of science that made him a natural to head the company. Reared in Palo Alto, Calif., he majored in marine biology at Stanford University, where his father was a professor of botany. He had a plan to pursue a research career but abandoned it because he needed money. At Pfizer the product was scientific, the pay was good, and he had a new wife and baby to sup-

port. (Steere likes to say his life has been one company, one wife.)

As a drug salesman, Steere was no silver-tongued glad-hander. He is shy and unassuming. So much so that when he applied to other drugmakers he was rejected as too introverted. But the Pfizer folks recognized a man who, believing in his products and understanding them, would sell well despite his shyness.

"Bill doesn't slap you on the back three times when he sees you," says James Vincent, chairman of Biogen, a biotech company, who has known Steere for more than a decade. "He's a very serious fellow; he's thoughtful." Which in some circumstances makes for better selling than does a ready smile.

Steere rose up the marketing side, taking a dozen jobs in 30 years. After landing the chief executive post in 1991, Steere saw early on that when you are smack in the middle of a great growth business, you are well-advised to put all your efforts into that market. He even got rid of good businesses that were outside of pharmaceuticals. Drug sales posed only half of Pfizer's total $6.4 billion in annual revenue just before Steere took control; in 1999 they will make up almost 90% of projected sales of $15.2 billion, and animal medicines will provide most of the remainder.

Gone is the talc mine in Montana. Gone, too, are the medical-devices businesses, including the unit that designed the artificial hip used by jock Bo Jackson and Pope John Paul II. Last month Pfizer sold off the last remnants of that segment for $1.7 billion in cash.

"Distractions," Steere calls them.

John Niblack, David Shedlarz, Karen Katen and Henry McKinnell (left to right)
Rivals for the throne.

As Pfizer's new chief, Steere more than tripled research spending in eight years, to $2.2 billion last year, or 16% of total revenue, from only 10% of a much smaller total way back when. The R&D budget is a lofty 18% of Pfizer's pharmaceutical sales. Merck's Rx sales for the first nine months of last year were over $1 billion higher, but it spent $300 million less on R&D, or just 10% of its drug sales.

The payoff was almost immediate. Since Steere took

Power pills

Five hot Pfizer drugs could hit $8 billion in sales next year. And a new generation of blockbusters looms in the lab.

NORVASC
Treatment for: Hypertension, angina
Projected 1999 sales: $3 billion
Patent expires in: 2007
Buzz: Catching on with overseas M.D.s

ZITHROMAX
Treatment for: Chlamydia, other bacterial infections
Projected 1999 sales: $1.2 billion
Patent expires in: 2005
Buzz: Can it prevent heart attacks, too?

ZOLOFT
Treatment for: Depression, obsessive-compulsive disorder
Projected 1999 sales: $2.1 billion
Patent expires in: 2005
Buzz: Closing the gap on archrival Prozac

TROVAN
Treatment for: Fourteen kinds of bacterial infections
Projected 1999 sales: $440 million
Patent expires in: 2011
Buzz: The most multifaceted antibiotic ever

VIAGRA
Treatment for: Erectile dysfunction
Projected 1999 sales: $1.4 billion
Patent expires in: 2011
Buzz: Approval for female sexual dysfunction would whip up more sales.

er eight years ago, Pfizer's earnings have tripled, sales ve doubled and the stock price has soared eightfold.

Pfizer's recent history has been a triumph, but it wasn't ways so. A German immigrant named Charles Pfizer gan the business in Brooklyn 150 years ago, producing tric acid and a handful of other chemicals used in food avoring. When World War I interrupted the supply of mons and limes from Italy, Pfizer scientists improvised: ey divined a way to produce citric acid from molasses.

That required deep vats—and they turned out to be eal for mass-producing penicillin when World War II oke out two decades later. That is how Pfizer got into e drug business; by the time Allied troops hit the beach- in Normandy, Pfizer provided a full 95% of the penicillin sed to treat them. The plant, now a fizer-funded museum, still stands on e same site in Williamsburg, Brooklyn.

Today Pfizer occupies a gleaming ffice tower in Manhattan, across the ast River from the original Brooklyn te. It no longer trades in commodities ke penicillin, but instead focuses on the roprietary patent-protected drugs that roduced healthy 32.5% operating rofit margins on more than $12 billion n drug sales last year. (For 1998 Pfizer s expected to earn $2.6 billion on total evenue of $13.3 billion.)

> In eight years under Steere, Pfizer's sales have doubled, net income has tripled and the stock price has soared eightfold.

The lush profits will be plowed back into the lab to produce even more bumper crops in the future. This is in sharp contrast to other drug houses whose mergers have been motivated in good part by a desire to cut overlapping research costs. "Everyone in the industry has 20% earnings growth, but they're making their earnings by cutting expenses," Steere says dismissively. "That's a death spiral."

At Merck, for example, earnings in the first nine months of 1998 rose 14%, compared with only 11.3% growth in sales; that's partly because spending on research and marketing rose only 1.8% in the same period. At Pfizer, Chief Financial Officer David Shedlarz says, in all earnestness, that he worries earnings will get too high. "It's a sign we're doing something wrong."

The entire industry hit bumpy times in the early 1990s, when Hillary Clinton was pushing for a form of socialized medicine here. Pfizer kept the faith. Big rivals chopped their sales staffs. Steere hired the best castoffs, leaving Pfizer with the biggest sales force when the Clinton plan died.

Since then Pfizer has expanded its sales ranks by more than 50% in just two years. "Marketing used to be aimed just at doctors," says Myron Holubiak, the new president of Roche Laboratories Inc. and a former consultant to Pfizer. "Now companies need to make meaningful statements that matter to all the stakeholders: doctors, health systems, patients and managed care organizations. Pfizer's been very successful at that."

While genteel Merck has traditionally hired M.B.A.s as salesmen and Eli Lilly and Co. has preferred pharmacists, Pfizer likes ex-soldiers. They might lack an academic background in medicine, but they are disciplined, focused folks. Steere brags of hiring over 1,000 veterans of Operation Desert Storm in the Persian Gulf.

Brett Rice, a West Point graduate who recently left his job as a Pfizer salesman, was a typical hire. He had no scientific background when he finished his three-year stint as an Army officer. But selling drugs often comes down to poise and aggressiveness, Rice says; Pfizer's extensive training courses taught him the technical side.

The company recently had 30,000 applicants for only 538 openings. A typical starting job pays $40,000 plus bonuses that scale up quickly; exceed your quota by 10% and your pay rises 15%. But salespeople who slow down have nowhere to hide. A publicly displayed ranking reveals how all salespeople fared in exceeding—or missing—their targets. "You either make it or get weeded out," says Senior Vice President C. Louis Clemente.

Last year every doctor was interested in getting samples of Viagra, says Henry McKinnell, who runs Pfizer's sales and marketing arm. Pfizer instructed its sales reps to harness this hype to push other Pfizer products. When making their sales pitches, they were told: "Viagra comes last."

The same disciplined approach that infuses Pfizer's mar-

In the works

ZELDOX
Treatment for: Schizophrenia
Number of sufferers: 2.7 million
Approval likely in: 2001
Buzz: Stops the inner voices.

RELPAX
Treatment for: Migraines
Number of sufferers: 11.9 million
Approval likely in: Mid-1999
Buzz: The über-aspirin of the next millennium?

INSULIN (inhalable)
Treatment for: Diabetes
Number of sufferers: 8.7 million
Approval likely in: 2001
Buzz: This inhaled form of insulin could make daily needle sticks history.

TIKOSYN
Treatment for: Heart rhythm disorders
Number of sufferers: 8.8 million
Approval likely in: 1999
Buzz: Keeps weak tickers ticking.

ALOND
Treatment for: Diabetes-related disorders
Number of sufferers: up to 8.7 million
Approval likely in: 2001
Buzz: Protects diabetics' eyes, nerves, kidneys, hearts, you name it.

DROLOXIFENE
Treatment for: Osteoporosis
Number of sufferers: 23 million
Approval likely in: 2001
Buzz: Shows promise for breast cancer, too.

Sources: Pfizer, Merrill Lynch, Centers for Disease Control.

keting permeates all its decision making. Newly hired scientists "don't know the difference between a good scientific idea and a good new drug idea," says John F. Niblack, Pfizer's research chief.

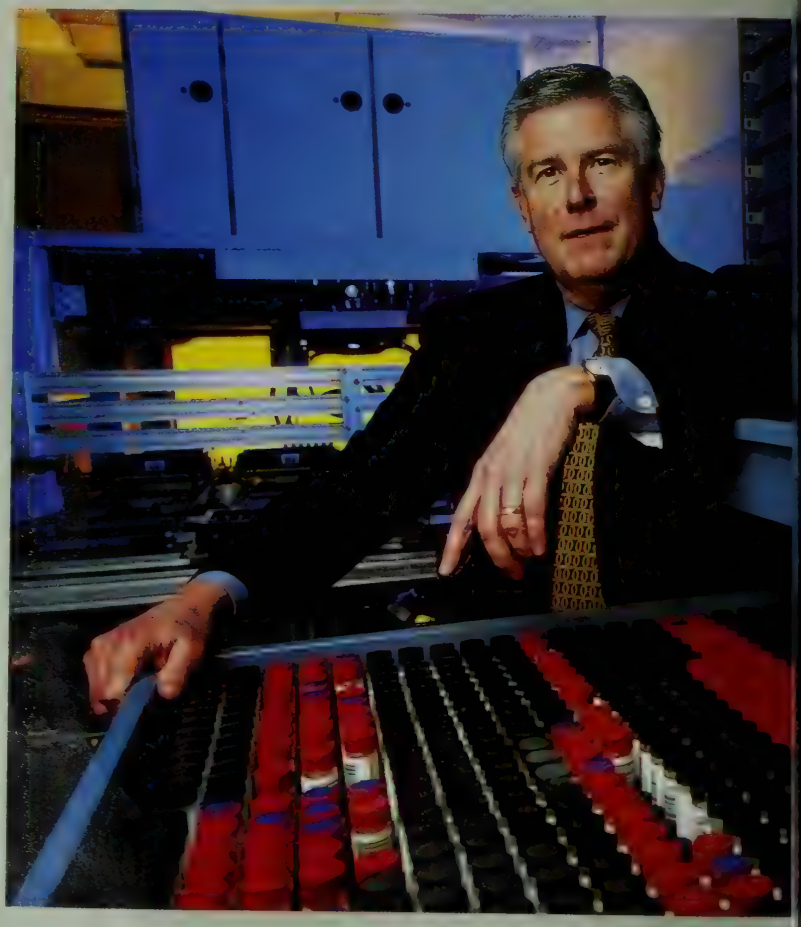
At Pfizer they soon learn. All new drugs go through the CRAM program, for Central Research Assists Marketing. That acronym shows who runs the show at Pfizer. Though scientists compose up to 90% of the "matrix team" that guides a drug's development, the team is captained by folks from marketing. That's an almost unheard-of amount of control for the marketing department; few, if any, Pfizer's larger rivals operate this way.

Just what do the marketing guys do when offered potential new product? They run elaborate cash flo models for a test drug, tweaking it when a new side effe emerges or an extra use is found. After they do the mat if the prospect falls into the red, it usually gets shelved.

This joint marketing/scientific approach often pays di idends. When Trovan, Pfizer's hot-selling antibiotic, w in clinical trials, one scientist thought it might work we

Golden age of biology

Mix good management with an industry that has a boundless future and you have an ideal investment. Pfizer fits the bill.



AT THE NEXUS of medical science and chemical commerce, John F. Niblack presides over one of the richest research operations in the world.

As research chief of Pfizer Inc., he oversees 6,000 scientists at major labs in Groton, Conn., Nagoya, Japan and Sandwich, England. The Sandwich shop tested a new angina drug in the early 1990s, deeming it a flop, but early trials yielded a profitable side effect: world-class erections.

Voila! Viagra.

Niblack's research budget will be well over $2 billion in 1999, more than triple the level in 1990. In 1998 he expanded his staff 20%, adding 1,000 new researchers. The largesse lets him fund failures in pursuit of real breakthroughs as well as to make safe bets on incremental improvements.

"We have a very high tolerance for innovative ideas at early stages," says Niblack, who joined Pfizer 32 years ago and has run worldwide research since 1990.

A potent remedy for migraine headaches, Relpax, could win approval later this year. Schizophrenia, the devastating mental disorder that afflicts 2.7 million Americans, has long eluded any drug breakthrough. Pfizer is in final-stage testing of Zeldox, a potent chemical that reduces erratic thought processes. It must first overcome side effects that reduce patients' muscle mass.

Another potential blockbuster is an inhaled form of insulin that would free diabetics from the pain of frequent injections. More drugs in late human trials treat ailments ranging from incontinence to fungal infections to osteoporosis.

r surgical infections; the sales team expanded the trial cordingly. Trovan trials eventually expanded to 13,000 eople in 26 countries, far more than federal rules quired. The payoff: Trovan won approval for a record 14 pes of infections.

Even after getting FDA approval, Pfizer's marketers look r ways to expand the customer base by running trials that inch new uses. The antibiotic Zithromax now treats a nge of bacterial infections, including sexually transmitd chlamydia. It turns out that a related chlamydia strain is present in most people and is particularly concentrated in the plaque that clogs arteries to cause heart attacks.

Like all drugmakers, Pfizer is benefiting from a flowering of biology. New techniques in gene-sequencing let researchers spot defects and vulnerabilities for possible drug targets. Screening machines conduct 10,000 miniexperiments a day, sifting among Pfizer's library of more than a million man-made compounds to find ones that might attack those targets.

Virtually every disease category can be attacked with these new technologies, but of all the gambles, Niblack says, Pfizer's cancer effort stirs the most excitement.

Last year "angiogenesis," the theoretical aim of starving cancerous tumors by blocking their ability to grow blood vessels, drew headlines around the world. Pfizer has eight separate angiogenesis chemicals, two of them in early stages of human testing. Pfizer experts have also identified other chinks in cancer's armor and have designed other drugs to attack those gaps.

"I've got people running up here every other week saying, 'Holy cow, look at this!'" says Pfizer's head cancer researcher, Michael Morin.

As drug discovery accelerates, many companies will be attacking the same targets with rival compounds, which lead to shorter product cycles. That's why—as the computer industry shows—it's not enough to be in a great growth industry. You need superb management as well. Pfizer's clearly got it.

–S.W.

COURTESY OF THE PFIZER ARCHIVES

Chemist Charles Pfizer founded his company 150 years ago. Its first plant, in Brooklyn, made citric acid for food flavoring.

Eureka! Might reducing chlamydia also reduce plaque and heart attack risk? Pfizer enrolled 3,500 heart attack patients for a test aimed at proving it; if it works, Zithromax would add a huge new market.

Pfizer's aggressiveness has occasionally gotten it into trouble. Two years ago the U.S. Food & Drug Administration caught the sales force using a brochure advocating unapproved or "off-label" uses for Zoloft, the antidepressant that competes with Lilly's Prozac. The Pfizer force was pushing Zoloft as a pick-me-up for, among others, patients who have just survived a heart attack—even though studies had found that taking Zoloft might cause further heart problems. Pfizer was forced to publicly recant.

To set Pfizer's future, Steere must annoint a successor and decide whether to go it alone in an industry convulsed by merger fever. On succession, the two frontrunners are Pfizer's chief scientist, Niblack, 59, and its top marketer, McKinnell, 55. Niblack's number two, Karen Katen, and the chief financial officer, Shedlarz, are dark-horse candidates. As for mergers, half of the three dozen giants that reigned a decade ago have disappeared, and Pfizer has been approached several times in recent years. But Bill Steere says buying size doesn't make much sense. Mergers are aimed at plugging gaps in the product line, and Pfizer doesn't have many; those that exist can be filled by alliances, which this year will bring in $1 billion a year in extra revenue for Pfizer. "Mergers in this industry are done out of weakness," Steere says. "We're not weak."

Asked which is more important to him, great science or shareholder value, Steere doesn't pause: "Science, no question about it." Which may, in the last resort, be the best thing for shareholders, too. ■

Best of the

Based on growth and profitability, FORBES editors pick the

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By Brian Zajac

IN THIS ISSUE we unveil the Forbes Platinum List. This new list of 400 companies includes just one in three of the biggest public corporations in the land.

It is not easy to make this list. We started by searching for companies—including foreign-based ones with a significant presence in the U.S.—with sales over $750 million. There were 1,200 publicly traded companies that made the first cut. These we divided into 25 industry groupings.

We searched for the best companies in each group, basing our evaluations on growth and profitability. Our criteria included sales growth, net income growth and return on capital over both the past five years and latest 12 months, typically through September.

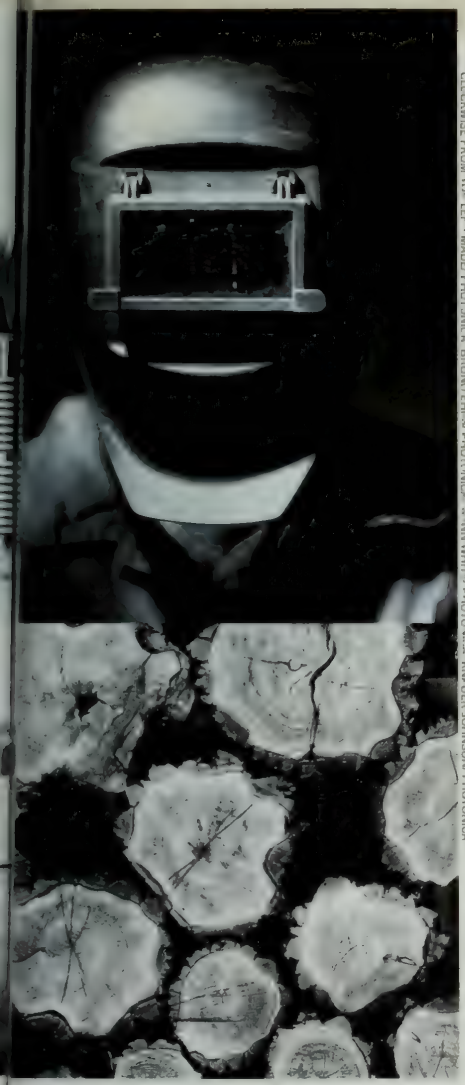
We dealt with the problem of companies that merge their way to growth—and growing profits—in part by measuring the growth of cash flow per share. A company that might otherwise look good was eliminated if it looked weak by this measure.

In general we selected the top 35% of the companies in each industry. But we exceeded that quota in some cases, such as computer software and financial services, where there was an abundance of fine performances. And we undershot the quota in ailing businesses like forest products and health care services.

Yes, this wouldn't be FORBES if the editors didn't put in their dime's worth. We threw out some companies that would otherwise have qualified if we sniffed trouble ahead. For example, Oakwood Homes, maker of factory-built homes, made all the cuts, but we eliminated the company because of heavy write-downs during the second and third quarters of 1998 related to loans securitized by its finance

Biggest

0 best-performing big companies in the U.S.



CLOCKWISE FROM TOP LEFT: MADEI PHOTONICA; BRUNO EHRS/ PHOTONICA; ANN WHITE/ PHOTONICA; KNAUER JOHNSON/ PHOTONICA

division; we suspect there may be more such hits in 1999.

Profiles of chief executives who run an outstanding company in each of our 25 industry sectors begin on page 130.

DEFINITIONS

RETURN ON CAPITAL: We define total capitalization as long-term debt, common and preferred equity, deferred taxes, investment tax credits and minority interest in consolidated subsidiaries. We define profits in a special way: as the sum of after-tax profits, minority interest and interest paid on long-term debt (reduced by taxes that would have been paid on the interest money if it had flowed through to the bottom line). We assume a 34% corporate tax rate to compute the tax break derived from interest expense.

Five-year average return on capital: Here we use a modified version of the sum-of-the-years digits method. This gives greater weight to recent results. What happens if there is a losing year in the five? Tough. We count a loss as a negative return and deduct it from the sum of the digits. If a firm shows a return on capital exceeding 100% in a given year, we scale it back to 100% in order to knock out outrageous returns. Net income includes gains or losses from discontinued operations but excludes extraordinary items.

We use the least-squares method to calculate sales and net income growth rates. This equation adjusts for sharp fluctuations and produces a result that closely reflects the average rate of growth.

The least-squares method can't handle negative values. How do we deal with losses? If profits are negative at the beginning of the period, we calculate the growth rate for a shorter period, starting with the first positive year. If a firm loses money during the middle of a measuring period, FORBES drops the year from the calculation and measures the growth rate over the remaining positive periods. If a firm loses money in more than one year, however, the five-year growth rate is not calculated and the result is listed as not meaningful (NM).

Our computer checks all growth rates with a comparison method to see if the growth pattern makes sense. Fluctuating patterns are marked as not meaningful.

Our five-year growth rates require six years of data, since we use latest fiscal-year-end results. Latest 12-month comparisons are between the most recent four quarters and the comparable quarters in the previous year. Sales, net income figures and operating and net profit margins are measured over the latest 12 months. Debt as a percentage of total capital is based on the most recent balance sheet.

For banks we figure revenue in terms of total interest income plus other income from operations. For insurance firms we lump premium income with net investment and other income.

For debt as a percentage of capital we include both long-term debt and the capitalized value of leases.

Operating income? By our definition this is net sales minus cost of goods sold; selling, general and administrative expenses; and research and development costs. By excluding such noncash costs as depreciation and amortization, interest expenses and minority interest, we get a better measure of real cash flow.

If you want additional stock market figures and earnings estimates on all Platinum 400 companies, log in to our Web site at www.forbes.com. ■

Aerospace & Defense

Boeing's production woes, sagging profits and layoffs dominate the headlines. But overall the aerospace sector still has wings: Industry sales at $140.5 billion last year were up 5% from 1997. Look for a 3% lift this year. Industry margins remain near 5% of sales, but are shrinking: Blame the vicious price competition between Boeing and Europe's Airbus Industrie—and the squeeze on defense spending.

Industry Buzz

- Look for Britain's Rolls-Royce to continue to gain market share of the jet-engine business this year—at the expense of GE. But UTC's Pratt & Whitney unit is coming on strong *(see profile).*

- Airbus Industrie is on a roll, winning about half the new orders in 1998, including a $2.5 billion order from TWA for seventy-five 100- to 150-seat planes.

- Productivity woes: It now takes Boeing 20% to 30% more man-hours to build an aircraft than it did in 1992.

- Losers for 1999 include Northrop Grumman, hit by the government blockage of its takeover by Lockheed Martin. A major supplier of 747 fuselage sections, Northrop will also suffer from Boeing's problems.

"Boeing's merger with McDonnell Douglas did not bring the market dominance the regulators feared. Just look at how tough a competitor Airbus has become."

–Howard Rubel
Goldman, Sachs aerospace analyst

Profile

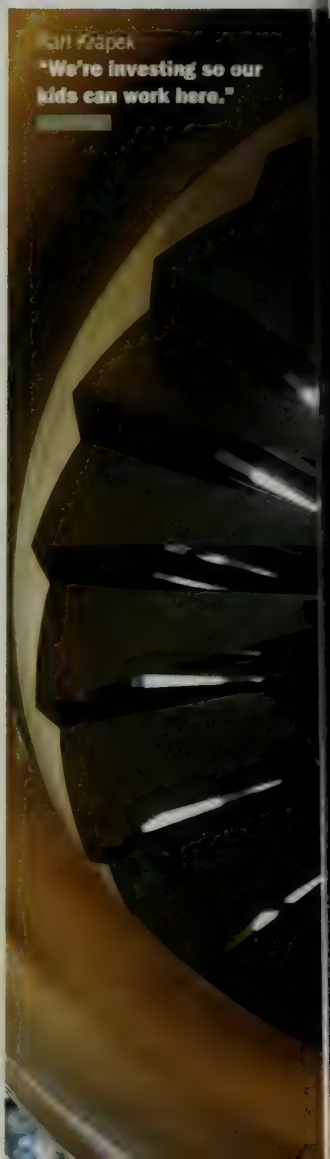
No more yo-yo

By Howard Banks

DURING THE LAST SERIOUS aircraft downturn, in 1992, United Technologies' $7.8 billion (sales) Pratt & Whitney engine division's costs were out of control. Most people get sloppy when times are good, and Pratt was no exception. It had a $300 million loss and accounted for most of UTC's $1.2 billion writedown that year. Vowed Pratt's president, Karl Krapek: "We were never going to go through the yo-yo thing again."

He laid off 10,000 people from a then 41,000 workforce and started slashing factory space. It's now down to 5.5 million square feet from 10 million—and still shrinking. His latest move is to shut down manufacturing at the company's West Palm Beach, Fla. plant and move that work to headquarters at East Hartford, Conn. In a year or two, most of that work will be concentrated at Middletown, 20 miles south of East Hartford.

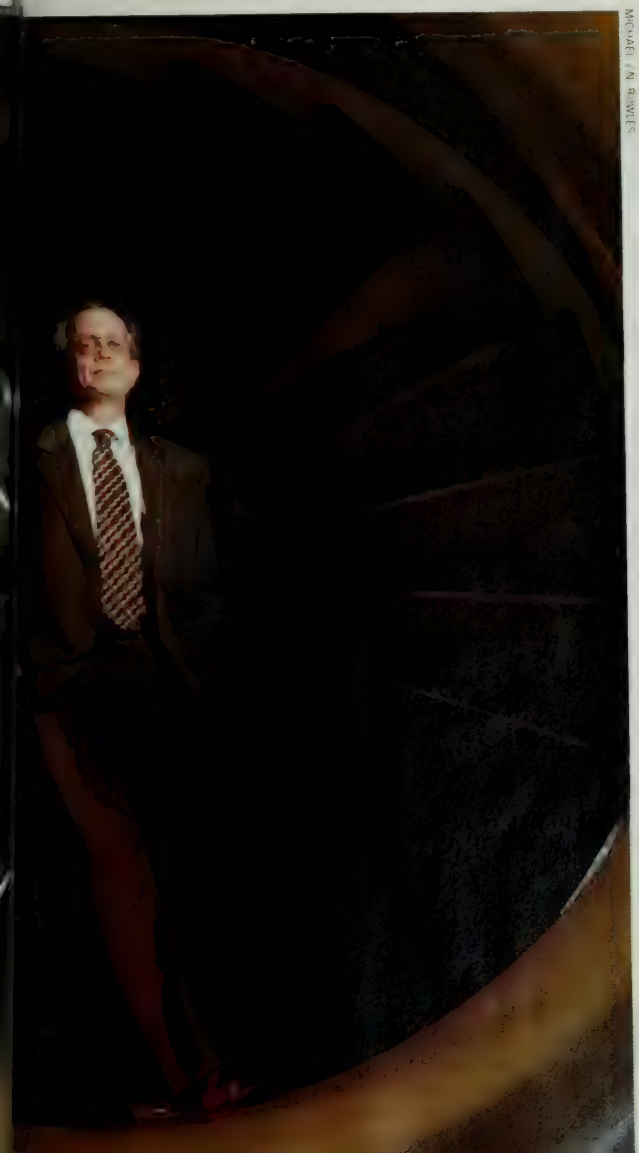
One way to cut costs, he



COMPANY	PROFITABILITY		GROWTH				SALES	NET INCOME	OPER MARGIN	PROFIT MARGIN	DEBT/ CAPITAL
	RETURN ON CAPITAL		SALES		NET INCOME						
	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	latest 12 mos $mil	latest 12 mos $mil	latest 12 mos %	latest 12 mos %	latest %
AlliedSignal	19.5	21.6	4.5	7.9	16.6	14.8	15,166	1,293	15.0	8.5	20.4
Cordant Technologies	18.7	20.3	NM	129.8	13.6	48.0	2,137	136	18.8	6.4	33.4
General Dynamics	23.5	16.5	3.3	19.4	–20.4	15.8	4,605	351	13.7	7.6	10.1
General Electric	12.2	13.5	9.8	13.1	12.5	13.3	98,527	8,975	23.9	9.1	58.4
Litton Industries	14.5	12.0	5.4	9.7	22.9	11.8	4,568	185	11.4	4.1	35.3
Precision Castparts	14.7	11.5	25.7	18.2	36.8	32.6	1,415	96	16.5	6.8	36.5
Sundstrand	19.6	30.8	NM	17.3	9.4	43.8	1,963	220	22.2	11.2	29.9
United Technologies	15.8	21.5	3.0	4.1	22.3	14.7	25,297	1,212	10.9	4.8	22.9

NM Not meaningful. For further explanation, see page 128

Sources: Forbes; Value Line and Market Guide via OneSource Information Services.



MICHAEL N. ROMERO

says, is to standardize working. "In the old days," Krapek recalls, old being just a few years ago, "engineers designed their own fasteners [nuts and bolts] for each engine, so we would have 15 different ones, costing from 50 cents to $15, depending on volume. We now concentrate on just a few fasteners. Savings so far: $4 million a year on this item alone."

Krapek is the first to concede that he was behind rival GE in attacking engine production costs. "I am trying to get our margins to match GE's 17%. We have made it to 13% [from 3% in 1993], and our aim is to achieve 16% by 2003."

To get there, Krapek is also attacking what he calls the "buy-to-fly ratio." It used to take 110,000 pounds of materials, costing an average of $7 per pound, to produce a 15,000 pound engine—that is a bit over a 7-to-1 ratio. Krapek is working to more than halve that ratio, to 4-to-1, starting with just 60,000 pounds of material to produce an engine. At 4-to-1, the saving is between $1 million and $2 million off engines costing $5 million to $12 million apiece.

Pratt needs every penny Krapek can save. In the early Nineties Pratt had no money to bid for Allison [it went to Rolls-Royce] or to compete for the engine contract for Boeing's last version of the bestselling 737. Now, with less money draining away for unnecessary costs, Pratt has four new engines in development. Key among them is the new PW6000, aimed at the growing market in 100- to 130-seat jet airliners. The PW6000 has already been picked by Airbus for its A318.

In the first nine months of 1998 Pratt & Whitney turned in an operating profit of $773 million, making Pratt once again the premier performer for UTC.

Krapek has been widely rumored to be a contender for the top job at Boeing should that company's board finally lose patience with Phil Condit. Krapek says he hasn't been asked, and "I still have a million things to do at Pratt." ■

Banking

Everywhere banks are getting fewer and bigger. Last year the industry did a quarter of a trillion dollars' worth of mergers, but few believe it will continue at that pace this year. Given that the industry was hard hit this year by hedge fund losses and emerging markets turmoil, it came through the year in pretty good shape. Barring a global recession, earnings prospects look good again in 1999.

Industry Buzz

1999'S WINNERS

- Banks with a greater proportion of noninterest income, which is less dependent on the business cycle, like First Union, State Street, Bank of New York.
- Companies with strong technology, which better prepares them to confront year 2000 computer perils, like Wachovia, First Union.
- Banks with excellent expense controls, like Firstar, Fifth Third.

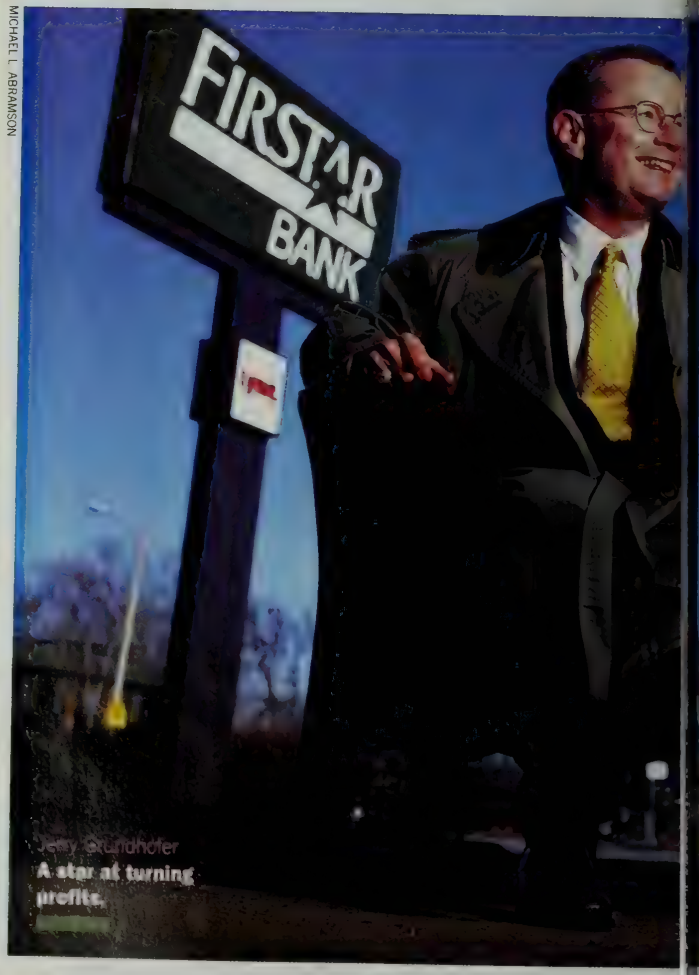
AND LOSERS

- Large banks with trading and international exposure, like J.P. Morgan, Republic National; continuing international worries will hit the big banks harder than regionals.
- Institutions with multiple technological systems that are digesting a big merger. Keep an eye on Citigroup, BankAmerica.

"Asset quality is the great unknown. It's been so favorable for so long that investors are worried that bankers will start to lower their credit standards.... There's anecdotal evidence, but no hard numbers. It's the sort of thing you don't see until it's too late."

–James Record, senior research analyst, SNL Securities

MICHAEL L. ABRAMSON

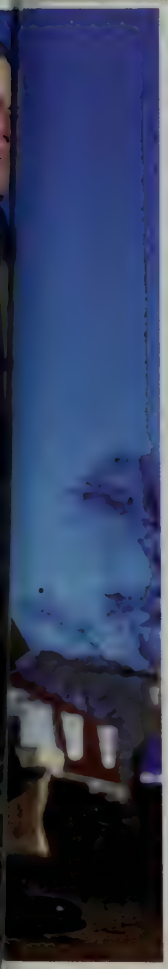


Jerry Grundhofer
A star at turning profits.

COMPANY	PROFITABILITY		GROWTH				SALES	INCOME	MARGIN	MARGIN	CAPITAL
	RETURN ON CAPITAL		SALES		NET INCOME						
	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	latest 12 mos $mil	latest 12 mos $mil	latest 12 mos %	latest 12 mos %	latest %
Bank of New York	15.7	17.3	11.3	6.0	23.8	11.5	5,823	1,177	40.1	20.2	24.2
BankBoston	11.3	12.5	14.8	11.4	34.6	–3.1	7,319	820	24.9	11.2	53.0
BB&T	14.4*	14.0	12.5	19.5	21.4	39.4	2,896	469	32.1	16.2	49.0
Crestar Financial	12.3	13.4	15.4	13.3	26.3	29.6	2,205	344	30.5	15.6	32.8
First Security	12.2	11.3	17.2	26.4	17.0	16.8	1,811	236	27.3	13.0	52.1
First Tennessee Natl	19.0	19.0	16.0	24.7	16.3	13.4	1,941	219	25.1	11.3	24.9
First Union	12.7	10.4	13.0	42.6	17.5	20.2	19,661	2,396	30.3	12.2	50.3
Firstar	15.7*	14.9	11.6*	9.4	10.3*	7.7	3,515	548	28.1	15.6	22.1
M&T Bank	16.7	15.0	8.6	23.9	12.8	15.3	1,527	196	26.1	12.9	20.5
Mellon Bank	13.0	14.2	11.9	13.6	16.8	9.5	5,625	843	32.0	15.0	36.0
Mercantile Bancorp	12.3	11.5	22.8	34.5	19.3	115.3	2,762	380	30.3	13.8	24.0
Northern Trust	15.2	15.5	13.8	17.1	15.8	16.3	2,517	344	26.7	13.7	27.3
Regions Financial	14.3*	13.6	18.5*	15.8	17.7*	3.0	2,967	387	28.3	13.0	7.6
SouthTrust	13.8	12.2	21.8	18.1	20.9	20.3	2,834	353	24.4	12.4	30.3
State Street	17.9	16.9	20.2	25.4	18.5	18.7	4,049	425	20.1	10.5	29.4
Summit Bancorp	13.4*	16.9	8.6	13.1	30.6	35.3	2,496	461	33.3	18.5	40.0
Synovus Finl	18.8	18.9	17.4	9.3	22.7	12.5	1,292	180	27.2	13.9	7.3
UnionBanCal	10.8	15.2	5.9	6.4	45.6	17.5	2,600	445	28.6	17.1	9.1
US Bancorp	12.4	10.7	6.7	8.7	14.8	50.5	7,383	1,267	38.8	17.2	66.2
Wells Fargo	11.5*	9.5	14.9	6.2	25.6	22.5	20,172	2,795	39.3	13.9	49.0

*Four-year average. For further explanation, see page 128.

Sources: Forbes; Value Line and Market Guide via OneSource Information Services.



Profile

Here's my card; we want your business

By Anne Granfield

JERRY A. GRUNDHOFER, 54, is not your genial sort of boss. He'll walk into an elevator, introduce himself to the employees unfortunate enough to be there and bluntly ask: "So, what did you sell today?"

The answer usually is: "Quite a lot." That's what will make $38 billion (assets) Firstar Corp., of Milwaukee, so profitable—relentless selling of bank services. As chief executive of Cincinnati's Star Banc, which just merged with Firstar, he expected every employee to carry business cards. If they were in a grocery store line and saw that the person in front was using a debit card from another bank, they could hand the person the card and say, "We'd like your business. Call me."

"We follow a very basic rule," Grundhofer says. "Grow revenues faster than expenses and great things happen."

Great things like what? Like this: In late 1996 he initiated a special one-time 1.5 million stock option grant that covered every Star Banc employee from the boardroom to the mailroom; full-timers who exercised their options in November each took home nearly $22,000 (part-timers scored over $6,000). Grundhofer has announced a new, similar plan for all 14,000 Firstar employees.

Grundhofer made Star very profitable: Its five-year return on capital, 17.5%, would have been fourth highest on our list, behind First Tennessee Bank, Synovus Financial and State Street. Its merger with Firstar creates a "superregional" with 720 branches, mostly in the Midwest, that ranks as the 21st-largest U.S. bank. Firstar will soon replace Amoco (bought by British Petroleum) in the S&P 500, sparking demand from index fund managers.

Maybe Grundhofer understands what motivates ordinary people because of his own background. His bartender father somehow scraped together enough money to send him and his brother, John, to Jesuit schools, including Loyola Marymount University in Los Angeles. Interestingly, both boys decided to go where the money is. John also became a banker and is now chief executive of the $73 billion U.S. Bancorp in Minneapolis.

Jerry worked summers at Union Bank in Los Angeles while in college. By age 35 he was president of rival Alliance Bank. His résumé kept getting better: executive vice president of retail banking at Wells Fargo, and later vice chairman of Security Pacific. In 1992 he helped negotiate its merger with BankAmerica.

Star Banc in 1993 was in desperate need of new leadership. Grundhofer supplied it in spades. From the time he took over until the merger last November, Star's stock climbed 516%, versus 199% for the S&P Regional Bank Index. ■

Luxury and performance come together like never before.

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ACURA

Business Services

As companies slim, outsourcing grows. This is great for outfits like Interim Services and Robert Half International. Information technology has created a seemingly insatiable demand for skilled temps. Therefore the biggest gains are going to agencies that are strong in IT.

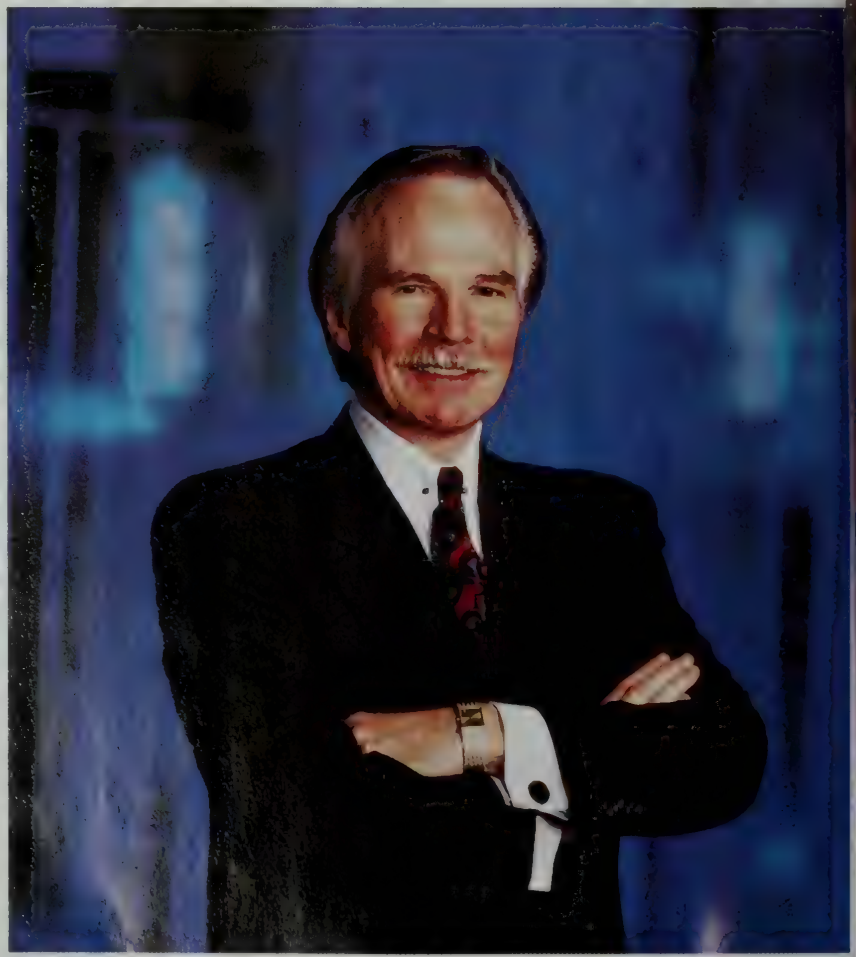
Profile

Entrepreneurial discipline—and nonconformity

By Ann Marsh

JAMES MANN LIKES TO TALK about his "tolerance for nonconformity." Strange words from a former IBM company man and U.S. Air Force pilot. But Mann has managed the exceptional feat of marrying corporate discipline with entrepreneurial freewheeling at Wayne, Pa.-based SunGard Data Systems.

SunGard (revenues, $1.1 billion projected for 1998) is essentially a collection of many little companies. Since coming to SunGard in a 1983 leveraged buyout, Mann has overseen the acquisition of 66 companies. In 1997 alone SunGard acquired



SunGard's James Mann
His entrepreneurs don't conform.

Even renowned cancer hospitals depend on a fundamental material: cement. And at a growing number of building projects, Cemex is the cement of choice. With operations in 22 countries and trade relations with 60 countries, Cemex combines the use of the latest production and information technology with an efficient, environmentally sound approach to meet the needs of customers everywhere. Because we're not just building hospitals—we're building a better world. To learn more, visit our web site at www.cemex.com.

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Building a Better World.

M. D. Anderson Cancer Center in Houston, Texas.

COMPANY	PROFITABILITY		GROWTH				SALES	NET INCOME	OPER MARGIN	PROFIT MARGIN	DEBT CAPI
	RETURN ON CAPITAL		SALES		NET INCOME						
	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	latest 12 mos $mil	latest 12 mos $mil	latest 12 mos %	latest 12 mos %	latest %
AAR	7.9	9.5	14.7	32.5	41.0	49.0	827	38	10.3	4.6	33.9
Administaff	35.1	13.8	23.8	41.5	26.0	50.6	1,562	9	0.9	0.6	0.0
AES	10.4	8.0	25.6	96.1	25.1	61.3	2,283	271	36.9	11.9	67.7
Automatic Data	19.0	18.2	17.3	17.2	15.5	18.5	4,970	623	24.0	12.5	4.6
H&R Block	23.5	26.6	–2.6	17.2	NM	335.5	1,357	413	37.0	30.4	18.0
Cintas	17.5	17.8	20.3	39.1	21.7	29.2	1,280	128	21.5	10.0	18.2
Ecolab	20.3	24.6	10.9	13.5	15.5	44.4	1,827	188	20.1	10.3	22.7
Equifax	31.1	30.0	13.8	15.6	21.2	–3.6	1,539	187	30.0	12.2	68.0
Express Scripts	28.9	24.7	53.4	110.6	48.2	26.2	2,334	40	4.2	1.7	58.3
Fiserv	6.8	11.8	23.2	27.2	30.3	31.6	1,164	109	23.0	9.4	28.8
Harsco	19.3	26.7	NM	4.6	21.6	103.0	1,706	262	18.8	15.4	29.1
Interim Services	10.2	8.5	30.1	19.1	34.5	31.2	1,789	53	9.3	3.0	37.4
Interpublic Group	20.4	21.0	10.9	25.8	16.7	29.2	3,466	289	17.5	8.4	26.5
Omnicare	11.1	7.0	52.7	77.4	44.7	34.3	1,365	71	14.6	5.2	40.4
Omnicom Group	23.1	26.1	18.6	27.1	27.7	27.4	3,789	265	16.8	7.0	48.3
Quintiles Transnatl	13.5	13.9	85.4	45.7	60.8	215.7	1,082	76	15.3	7.0	26.6
Robert Half Intl	22.8	28.1	42.8	41.0	80.7	45.9	1,683	123	13.3	7.3	0.7
Shared Medical Sys	17.1	18.7	14.3	20.4	15.9	21.1	1,044	69	15.4	6.6	3.4
SunGard Data Systems	13.0	18.4	21.4	35.9	16.5	48.6	1,091	103	27.2	9.5	0.4
World Fuel Services	19.9	16.7	31.9	–3.8	52.4	4.6	783	16	2.6	2.0	0.3

NM: Not meaningful. For further explanation, see page 128.

Sources: Forbes; Value Line and Market Guide via OneSource Information Servic

Industry Buzz

1999'S WINNERS

• Interim Services, which has 55% of its business in specialty staffing, including staffing for the information technology sector. The firm sold off a distracting health care business in late 1997.

• Robert Half International, where executive placement grew 1,000% in 1998. RHI doesn't do much Y2K staffing and therefore will avoid the "Y2K bubble" that will temporarily inflate competitors' margins this year.

AND LOSERS

• Manpower, which has nearly 50% of its business in the vulnerable manufacturing sector. Many of its largest contracts are with companies that need temps for light industrial assembly— e.g., toy companies, cosmetics companies. These firms are pushing for lower prices and could cut back outsourcing work.

11 companies—and 4 more last year.

Unlike the old-line conglomerates that SunGard in some ways resembles, this one's different businesses are tied together by a common thread: software and support services, mostly for financial businesses such as derivatives traders, mutual fund managers, bank trusts. SunGard's revenues are 70% derived from investment support. A second leg of the company is disaster recovery (24%)—that is, offsite backup to bring clients back on-line in an emergency. A third, smaller line (6%) is computer services.

Growth by acquisition is rightly viewed with suspicion as being a means of propping up a flagging revenue stream. More often than not a resulting culture clash mucks things up.

Mann's way of dealing with this problem is simple: He doesn't try to meld the acquisitions with the older operations. He lets them operate on their own. "I have always believe smaller businesses work bett than bigger businesses," Man explains.

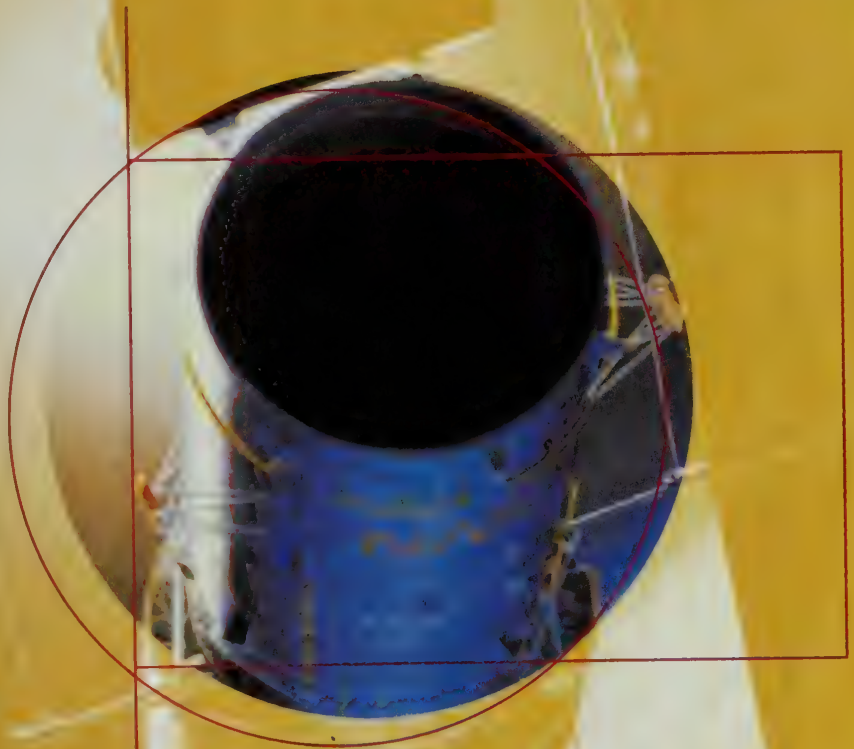
He thus looks for companie with splendid management tha can be strengthened with addi tional capital and SunGard' distribution system.

The tradeoff is that the submit to SunGard's rigi financial controls. "Their [th managers'] targets ought to b clearly understood. That is on of the clear legacies from m time in the military."

Cristóbal Conde, cofounde of Devon Systems, sold hi trading and risk managemen software company to SunGar in 1986. Devon, now part o Infinity, has expanded from 25 employees to 280. On top o his Devon stake, which is a portion of the $40 million SunGard paid, Conde is halfway to an additional $10 million. That's the golden carrot Mann hangs before his managers as a reward if they can meet his by-no-means-modest targets. ■

ARKANSAS
A natural for business

The Hubble Telescope Dances Through The Solar System.



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Business Supplies

There's no place like home. Even if business spending on computers slows, look for increased penetration of personal computers and printers into American homes. There's still plenty of room: Only about half of U.S. homes now have PCs. This also spells demand for high-margin printer cartridges and floppy disks. But as more people pay their bills electronically, traditional business forms lose ground.

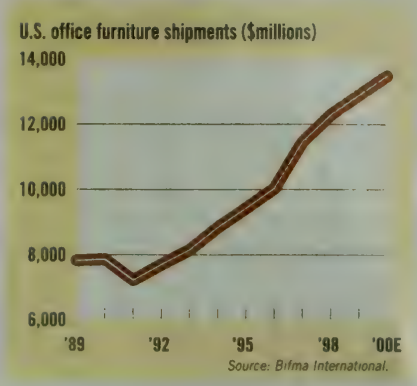
Industry Buzz

- Office furniture sales this year should near $13 billion, up from $12.3 billion in 1998 and only $7.8 billion a decade ago.

- Look for big office furniture makers like Herman Miller to move into the $10 billion ancillary services market like workspace management, warehousing and moving.

- Advertising on ATMs will boost demand for the teller machines and also increase the ATM upgrade business—adding more memory and larger color screens.

- Leading indicator? Large office-supply distributors like Daisytek and United Stationers reported slowing growth at year-end. "In part due to corporate managers trimming discretionary spending," says Neal Johnson, an analyst at Robinson-Humphrey.



OMPANY	PROFITABILITY		GROWTH				SALES	NET INCOME	OPER MARGIN	PROFIT MARGIN	DEBT/ CAPITAL
	RETURN ON CAPITAL		SALES		NET INCOME						
	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	latest 12 mos $mil	latest 12 mos $mil	latest 12 mos %	latest 12 mos %	latest %
aisytek International	20.5	13.9	27.5	24.4	40.3*	26.7	847	19	4.8	2.3	22.0
iebold	18.5	11.0	17.7	2.1	24.7	–33.6	1,205	77	15.9	6.4	3.0
eneral Binding	13.3	8.2	14.8	25.0	14.3	–6.0	883	26	12.8	2.9	69.2
ION Industries	22.9	23.1	12.4	31.7	15.5	25.2	1,660	103	13.3	6.2	14.8
exmark Intl Group	20.3*	40.0	8.7	16.5	62.7†	44.2	2,849	218	14.9	7.7	22.4
Mail-Well	9.7†	11.3	34.4	54.6	46.6	63.0	1,317	42	10.8	3.2	60.8
Herman Miller	20.1	38.1	15.4	13.5	35.7	55.3	1,765	135	15.3	7.6	30.0
Reynolds & Reynolds	16.4	16.3	17.3	7.2	9.6	74.1	1,486	103	19.1	6.9	47.9
Symbol Technologies	13.3	18.1	18.8	22.9	46.6*	34.8	916	88	20.5	9.7	6.0
Wallace Computer Svcs	14.3	15.6	18.8	49.6	14.9	–8.7	1,356	74	15.7	5.5	41.7

*Four-year average †Three-year average. For further explanation, see page 128.

Sources: Forbes; Value Line and Market Guide via OneSource Information Services.

JONATHAN TORGOVNIK

Jerry Swartz **A whiz at humanizing technology.**

Profile

Bar-code wizard

By Ashlea Ebeling

JEROME SWARTZ, 58, founded Holtsville, N.Y.-headquartered Symbol Technologies, Inc. in, yes, a garage back in 1975. It's now a 4,000-employee firm with nearly $1 billion in estimated revenue for 1998 and a five-year average return on capital of 13.3%.

Swartz built the business on a passion for what he calls "blue-collar technology." He designs and builds scanners that make postal workers or store clerks more efficient by helping them track packages or inventories. "I don't believe in technology or R&D in a vacuum," says the entrepreneur/inventor, who has 125 patents to his credit. "I like to see it become real."

But first he has to look into the future. Swartz can imagine bringing a bar-code scanner to dinner parties and scanning code off a bottle of wine he likes. Then he would download the information into his home computer and a store would deliver the wine the next day. He plans to sell such scanners to retailers. He hopes they will give them away to good customers to encourage them to shop via scanner.

"He sounds a little bit like the Wizard of Oz," says Symbol's marketing vice president, Judy Murrah. "But when you work for him, you become a believer."

Swartz is very much a believer in the usefulness of what he does. He founded Symbol when he was an electrical engineering professor at his alma mater, Brooklyn Polytechnic University. Impatient with standing in checkout lines at supermarkets, he conceived a handheld bar-code scanner for retailers to speed up lines.

Retailers said they didn't need it. Lasermakers said they couldn't make a laser small enough. Swartz ignored them, designed a prototype himself, and in 1985, after six refinancings and ten years of losses, Symbol's handheld scanner sales reached $13.9 million, with first-time profits of $518,000.

Swartz's next major breakthrough was wearable computers. Today thousands of distribution workers at companies like UPS strap Symbol computers onto their wrists and slip Symbol miniscanners on their fingers. "It's just like wearing a watch and a ring," says Swartz.

What's next? Swartz talks in an animated stream-of-consciousness about hospitals, manufacturing plants and universities as markets for his products. He shows off one of his new inventions—a raised, two-dimensional bar code that can hold 1.1 kilobytes of data, or 100 times more than a traditional bar code—it's on the back of his business card. On a driver's license the bar code can be scanned to reveal your driving record, insurance carrier, fingerprints, organ donation preferences, even a color photograph.

Swartz also sees a big future for Symbol's new radio-wave communications systems that can connect computers and phones in an office or campus setting. No wires—no telephone charges.

"I want to see the future today," he says. To hurry the future along, he bombards employees with "Jerrygrams," messages he furiously scrawls on index cards he keeps in his front shirt pocket. Most are marked UT—for urgent, today.

Capital Goods

Whatever happens to the overall economy in 1999, capital spending is almost certain to slow. Growth in capital spending this year should be only about 5%, half the rate of 1998. Plunging farm commodity prices have already punished the farm equipment sector. Look for construction equipment, mining equipment and heavy duty truck makers to feel the pinch this year.

Profile

The most decentralized company in the world

By Michelle Conlin

ITW chief James Farrell **His company nails GE.**

ILLINOIS TOOL WORKS Chief Executive James Farrell bans e-mail from the company's computer networks. "I want my guys to get their butts out of here and visit our operations," he says.

Farrell might be considered a Luddite but for this: ITW's ten-year average annual earnings growth of 16% and five-year total return on capital of 19% exceed even those of capital goods heavyweight General Electric.

Pretty darned good for an old-line machinery company. But when it comes to management, there is nothing old-fashioned about ITW. Farrell presides over a thoroughly decentralized organization.

Though ITW has $6 billion in sales, it is broken into 400 units with an average revenue of just $15 million. They make everything from welding equipment to nails to plastic six-pack rings. Each unit has its own general manager, who runs the division as if it were his own business—so long as that unit is outperforming everyone else in the particular market.

There aren't any company-wide, preset benchmark profit

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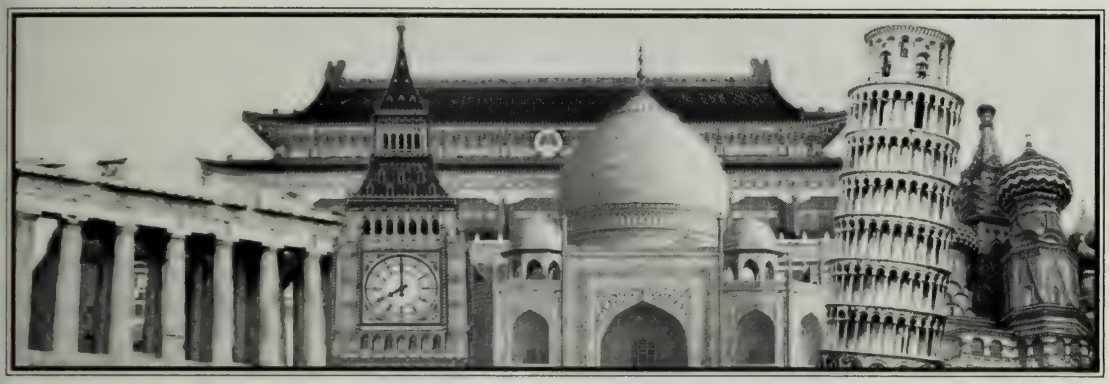

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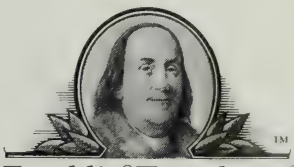

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COMPANY	PROFITABILITY		GROWTH				SALES	NET INCOME	OPER MARGIN	PROFIT MARGIN	DEBT CAPIT.
	RETURN ON CAPITAL		SALES		NET INCOME						
	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	latest 12 mos $mil	latest 12 mos $mil	latest 12 mos %	latest 12 mos %	latest %
Aeroquip-Vickers	15.8	17.8	5.2	2.6	62.2	32.4	2,153	124	14.0	5.8	31.0
Ametek	18.8	20.0	4.9	14.3	16.8†	19.7	938	58	15.6	6.2	54.6
Case	15.2†	12.6	9.5	8.9	30.8†	–0.3	6,126	381	11.8	6.2	46.4
Caterpillar	20.8	17.8	13.0	14.1	23.9*	4.3	20,764	1,663	19.6	8.0	64.8
Crane	15.5	18.0	10.0	10.9	32.6	22.7	2,202	133	13.0	6.0	38.1
Danaher	19.3	13.9	17.3	34.8	42.0	14.7	2,673	168	16.4	6.3	20.4
Deere & Co	17.3	16.9	12.2	8.1	33.4	6.4	13,822	1,021	17.1	7.4	40.5
Donaldson	20.6	20.4	11.9	5.8	15.4	6.3	932	56	12.0	6.1	16.4
Dover	23.2	19.9	15.9	10.7	28.4	–0.3	4,836	384	17.0	8.0	23.8
Eaton	15.5	15.2	13.9	–5.4	26.3	32.6	6,953	460	14.3	6.6	36.7
Emerson Electric	19.5	20.4	11.0	9.3	10.5	9.5	13,447	1,229	21.7	9.1	15.0
Federal Signal	19.8	16.4	13.6	5.7	12.5	–11.7	965	56	12.4	5.9	27.8
Illinois Tool Works	19.3	19.0	14.2	6.2	27.4	15.6	5,488	649	22.4	11.8	23.2
Ingersoll-Rand	13.7	11.8	15.1	17.8	27.7	14.6	8,142	453	15.7	5.6	51.3
Kennametal	15.8	9.1	19.9	55.1	40.9	–17.9	1,849	61	15.0	3.3	50.4
Lincoln Electric	16.3	19.1	7.3	3.7	21.1†	11.4	1,189	92	14.6	7.8	10.0
Nacco Industries	9.0	14.6	10.4	12.4	31.2	108.1	2,466	100	11.3	4.1	44.5
Paccar	13.4	17.1	16.6	22.9	31.5	58.4	7,564	435	11.6	5.8	41.4
Parker Hannifin	16.6	16.7	14.1	13.1	45.3	7.3	4,769	323	15.6	6.8	26.4
Teleflex	11.4	11.9	14.2	27.1	17.6	19.0	1,366	78	14.2	5.8	31.9
Timken	13.3	13.0	10.5	5.3	34.5†	–8.5	2,697	149	15.2	5.5	24.2
Wabash National	10.4	8.6	23.3	65.3	NM	224.4	1,234	32	7.0	2.6	32.3

NM: Not meaningful. *Four-year average. †Three-year average. For further explanation, see page 128. *Sources: Forbes; Value Line and Market Guide via OneSource Information Service*

Industry Buzz

ALARM BELLS

- The S&P Diversified Machinery index was down 18% last year while the S&P 500 was up 20%.
- Construction equipment outfits like Caterpillar are already reporting rising inventories and order cutbacks.
- Mining equipment makers like Harnischfeger won't see any kind of recovery kick in until commodity prices like coal and paper rise.
- Parker Hannifin, a bellwether for the farm and construction equipment industry, reported a 6% decline in North American orders for November.

"It's not a pretty picture. We're seeing the typical deceleration of earnings growth and the beginnings of an industrial manufacturing downturn."

–Tobias Levkovich, Salomon Smith Barney

goals, such as those GE and AlliedSignal impose. Instead top management imposes standards based on a particular unit's competition. Each general manager must usually submit to grillings about six times a year by one of Farrell's seven executive vice presidents: "Why don't you have that account? Why does our competitor have it? What will you do to get it?"

When a unit starts to outperform—or underperform—the competition, Farrell splits it into more pieces, usually along tightly focused product lines. This corporate mitosis, Farrell argues, acts to capitalize better on what's working—or to isolate what's wrong. "When you separate the pieces, you can grow faster than if you keep them together, and that growth far outstrips the duplicate costs," he says.

When ITW acquires a company, it will frequently chop it into several units. Take Farrell's acquisition of Miller Electric in 1993 and Hobart Brothers in 1996, two troubled welding equipment outfits. Farrell immediately broke up the two firms into 20 units, along discrete product lines, so the general managers could better focus on what needed to be done. Operating margins have jumped to 15% from 2%.

Farrell's only concession to centralized mantras is what he calls his "80-20" rule. By that he means he wants his managers to focus their efforts on the 20% of customers who make up 80% of the business.

How far can Farrell take this unorthodox structure? "I'd like to see us grow to 1,000 units," Farrell says, sounding more like a Silicon Valley entrepreneur than a boss of a midwestern machine company. "You have to appreciate, we're all a little wacko here. We get turned on by nails." ■

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Chemicals

Overcapacity and the Asian crisis combined last year to deliver a one-two punch to an industry already on the ropes. Exports of chemicals to some Asian countries have fallen 40%. The consensus is that prices for many commodity chemicals will continue to fall. Bright spot: an expected merger frenzy among specialty producers may buoy stock prices.

Industry Buzz

• Many companies did a great job cutting costs, but earnings are still down. Union Carbide has cut $813 million of costs over five and a half years, 6% more than planned. Earnings? Once estimated at $3.65 per share for the year, they are now pegged at $2.53.

• Are joint ventures the new rage? Millennium Chemicals and Lyondell Petrochemicals formed Equistar, combining their ethylene businesses to cut costs and keep each other from building more plants. Then everyone started talking about the "Equistar model." Are Nova and Union Carbide next?

• M&A hit a record high of some $36 billion, nearly quadrupling in three years, says Young & Partners. A highlight: Hercules buys BetzDearborn for $2.4 billion—one of the largest, and not likely the last, specialty chemical deal between U.S. giants.

"The trough in commodity prices will last twice as long as usual. Small companies will go out of business. Large companies will see earnings fall much further than they expect."

–Timothy Rankin, Franklin Mutual Advisors

Profile

Rising son

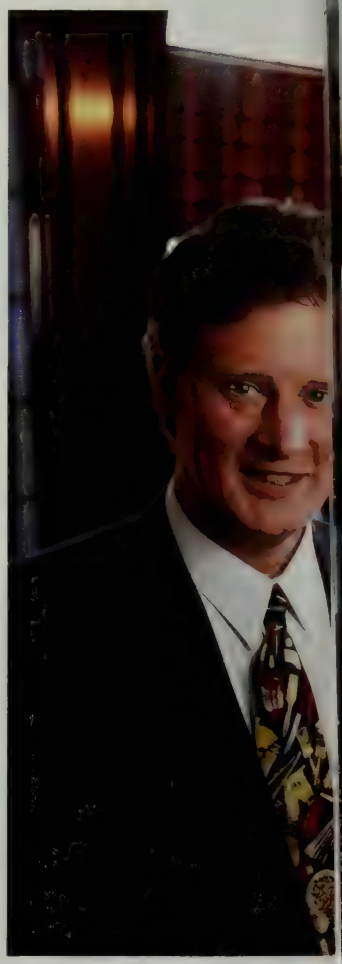
By Bernard Condon

CHEMICALS. A DULL, commodity-type business, right? Not at RPM, Inc. under the second-generation management of Thomas Sullivan, who took over his father's business 27 years ago. In those years Tom, 61, built the publicly owned company from revenues of $11 million to its present $1.7 billion.

This little-known specialty-chemicals maker has delivered an annual average compound return of 21% over that time. No "restructuring" charges, no sweeping layoffs and not a single year of fallen profits in 51 years.

The Sullivans, who still own 5% of the shares, built the business piece by piece by acquiring dozens of small companies and leaving their management to run the shows.

A third generation looms on the scene. Tom's son and heir apparent, Frank, 38, a former banker who joined RPM nine years ago, is restless. Frank



OMPANY	PROFITABILITY		GROWTH				SALES	NET INCOME	OPER MARGIN	PROFIT MARGIN	DEBT/ CAPITAL
	RETURN ON CAPITAL		SALES		NET INCOME						
	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	latest 12 mos $mil	latest 12 mos $mil	latest 12 mos %	latest 12 mos %	latest %
ir Prods & Chems	11.0	11.3	8.5	6.1	22.0	27.4	4,919	547	26.7	11.1	41.0
irgas	8.1	4.8	29.0	17.0	20.5	–18.2	1,554	28	13.2	1.8	61.5
kzo Nobel	7.0	7.8	7.9	7.2	23.9	38.1	12,672	651	15.5	5.1	10.8
ytec Industries	35.4	19.6	5.5	16.5	NM	12.9	1,452	123	17.2	8.5	52.6
eorgia Gulf	23.1	17.0	4.8	–4.3	14.7	–16.3	911	64	20.4	7.1	82.9
ntl Flavors & Frags	20.6	19.8	5.4	–3.4	2.8	–9.1	1,395	204	25.5	14.6	0.3
PG Industries	19.8	20.5	5.8	3.8	22.8	12.9	7,567	798	21.3	10.6	22.6
raxair	14.2	9.9	15.2	3.6	34.2	1.5	4,845	418	26.7	8.6	48.9
Rohm & Haas	13.9	18.9	5.9	–5.7	24.1	23.0	3,786	476	24.1	12.6	17.4
RPM	10.6	8.8	19.9	14.8	16.4	10.1	1,648	91	15.1	5.5	41.6
Sherwin-Williams	18.7	12.5	11.9	3.5	12.1	6.2	4,915	270	13.7	5.5	31.4
Sigma-Aldrich	18.0	15.9	11.6	7.6	11.8	4.8	1,185	169	26.3	14.3	0.1
Union Carbide	21.1	13.7	7.3	–8.7	46.6	–23.5	5,909	483	17.0	8.2	40.8
Valhi	7.2	23.4	10.9	–2.5	56.4†	283.3	1,081	254	16.1	23.5	38.2
Valspar	23.4	22.6	10.2	13.6	12.7	9.5	1,155	72	13.2	6.2	28.0

NM: Not meaningful. †Three-year average. For further explanation, see page 128

Sources: Forbes; Value Line and Market Guide via OneSource Information Services.

Frank and Tom Sullivan **Passing the torch—again.**

thinks his dad hasn't been tough enough with underperformers among the 20 divisions. "We've been very patient, and that's been good," says Frank, RPM's chief financial officer. "But sometimes too patient. This isn't a popularity contest."

Frank is making his presence felt. He is on the lookout for companies with annual sales up to $500 million, five times larger than RPM's normal fare. The company is also venturing more abroad. In the past two years RPM bought a South African maker of construction chemicals, a British fireproof-coatings company and a polymer flooring company in Brazil.

"Whether that $500-million-a-year opportunity comes along here or in Europe," says a confident Frank, "we're going to do it."

Frank has hired a half-dozen men who share his restlessness—all under 35—whose offices are close by his first-floor office at headquarters in Medina, Ohio. The youngsters have already shaken things up. One suggested basing two-thirds of a subsidiary chief's salary on profits above the cost of capital, instead of straight profits, as the elder Sullivan has preferred. Frank has already pushed out two top executives who he felt weren't delivering. His father, in the quarter-century before, had gotten rid of just three executives. To plow money back into the company, Frank has lowered annual dividends to 50% of profits from 62% five years ago.

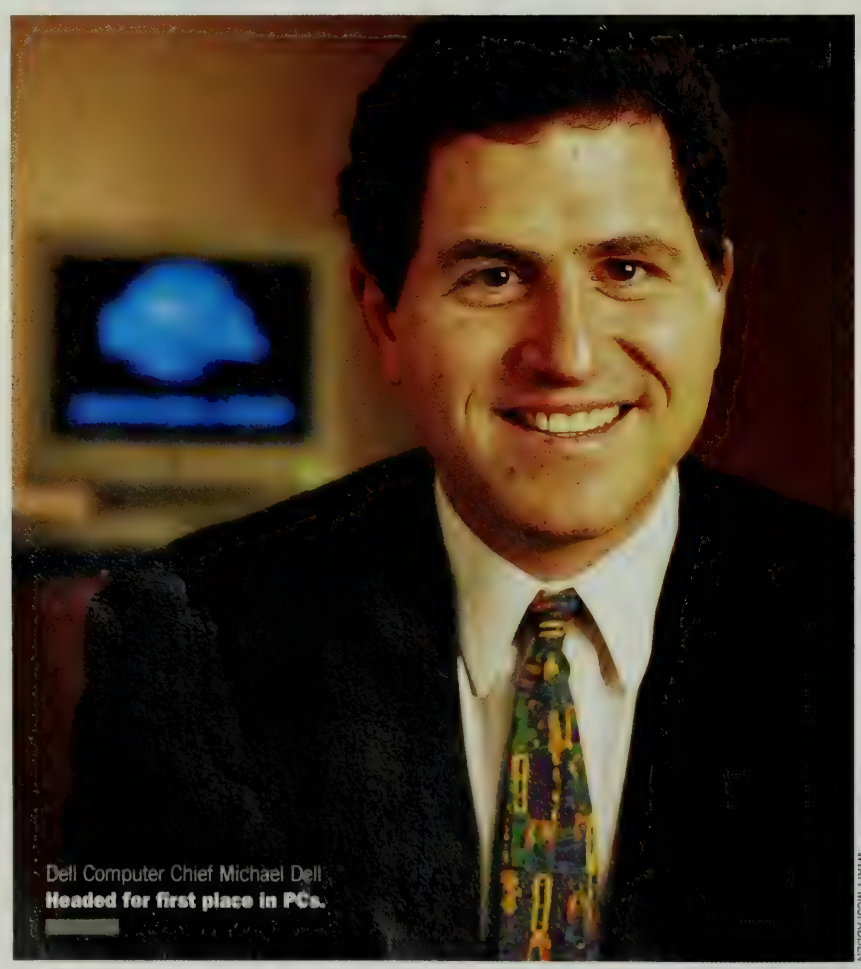
If Frank is taking an active role in the company, his dad is by no means out of the picture. Tom, who's long left daily operations to RPM President James Karman, has become a whiz at wooing potential acquisitions. He badgered the guys at Rust-Oleum Corp. each year for 16 years—calling them, visiting them, sending chocolates on holidays—until they finally agreed to sell to him in 1994.

"If they're willing to sell to you right away," says Tom from his second-floor office, "they're not worth buying."

Of course the ones that are worth buying have lots of suitors. Tom and Frank have their work cut out for them trying to maintain RPM's growth pace. ■

Computers

A new trend has Intel on the outside. The average selling price of a PC dropped by nearly 25% in 1998. Forty-five percent of the PCs sold in retail stores last year were priced below $1,000. That's opened a chink in the Intel Corp. monopoly. Only half of the sub-$1,000 PCs have "Intel inside" chips. The rest come from rivals Advanced Micro Devices and scrappy upstart Cyrix Corp. Robust growth in services—the fees hardware companies charge for installing and maintaining computers—are compensating for drops in hardware prices.



Dell Computer Chief Michael Dell
Headed for first place in PCs.

WYATT MCSPADDEN

Profile

The push for more user-friendly boxes

By Julie Pitta

WELL, DELL DID IT AGAIN. It's getting almost monotonous. While the PC industry grew by a paltry 5% in 1998, Dell grew at a blistering pace of more than 50%. Dell outsells IBM and Hewlett-Packard Co. and looks ready to overtake the number one maker, archrival Compaq Computer Corp.

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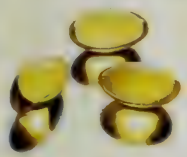

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	RETURN ON CAPITAL		SALES		NET INCOME						
	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	latest 12 mos $mil	latest 12 mos $mil	latest 12 mos %	latest 12 mos %	latest %
Amer Power Conversion	36.4	26.1	40.9	27.3	30.4	20.1	1,059	138	20.8	13.0	0.0
Arrow Electronics	14.1	9.7	25.3	13.9	18.0	4.0	8,295	166	5.2	2.0	37.8
CHS Electronics	31.8	13.8	136.4	98.9	NM	186.5	7,523	88	2.7	1.2	25.1
Cisco Systems	44.1	26.7	69.7	33.5	52.1	27.2	9,178	1,532	34.8	16.7	0.0
Compaq Computer	24.1	def	41.0	21.8	48.6	P-D	27,633	–2,834	6.0	def	0.0
Dell Computer	52.3	101.9	42.8	52.8	86.0†	55.8	16,807	1,320	11.5	7.9	20.8
EMC	32.6	24.0	50.0	34.4	68.5	41.6	3,656	703	28.6	19.2	14.9
Gateway 2000	33.6	33.1	41.7	21.6	17.3	195.3	7,139	310	7.7	4.3	0.2
Hewlett-Packard	18.6	15.4	18.8	9.7	20.9	–5.6	47,061	2,945	11.9	6.3	10.6
Ingram Micro	15.8	13.1	43.6	39.6	40.1	52.7	20,942	241	2.6	1.2	47.4
Intel	34.7	25.2	33.9	0.7	41.9	–19.2	25,166	5,747	42.6	22.8	2.4
IBM	14.0	19.1	4.9	3.0	26.7†	0.9	80,259	6,075	17.4	7.6	43.1
Jabil Circuit	26.0	30.8	33.1	30.6	63.5	33.0	1,277	70	10.8	5.5	24.3
Pioneer-Standard Elec	14.1	6.5	33.0	22.3	14.7	1.2	1,962	28	4.8	1.4	42.9
SCI Systems	14.8	13.7	36.5	9.0	49.6	11.8	6,634	139	5.3	2.1	34.7
Solectron	17.6	16.5	42.2	43.1	44.4	25.8	5,288	199	7.8	3.8	24.6
Storage Technology	8.0	20.4	9.0	7.6	NM	6.2	2,262	229	20.0	10.1	2.1
Sun Microsystems	26.0	24.4	19.1	15.2	42.0	2.8	10,183	768	18.1	7.5	0.0
Tech Data	17.4	17.2	46.7	56.5	29.2	46.2	9,789	119	2.5	1.2	24.4
Teradyne	16.3	14.1	22.7	40.2	42.3	61.9	1,565	137	16.7	8.7	1.2

P-D: Profit to deficit. def: Deficit. NM: Not meaningful. †Three-year average. For further explanation, see page 128. *Sources: Forbes; Value Line and Market Guide via OneSource Information Services*

Industry Buzz

- Hardware sales will increase sharply in the first half of the year as companies rush to replace old computers with Y2K-compliant hardware.

- But sales will drop off in the second half as companies stop buying in order to integrate these new machines. The slowdown will trigger a PC price war as manufacturers slash prices to resuscitate demand.

"As more companies get into electronic commerce, they're going to need reliable computer systems of the kind supplied by companies like IBM and Sun. If you're Dell and you're doing $10 million a day in Internet sales, losing a half-hour means losing a half-million dollars."

--Carl Howe of Forrester Research, Inc.

As most everyone knows, Michael Dell started the outfit in his dormitory room in his freshman year at the University of Texas in 1983, dropping out after hitting $80,000 in sales in one month. The kid (he's now all of 33) rewrote the rules of competition for the PC industry. Now IBM, Compaq and HP play by Dell's rules.

His bigger rivals thought victory would go to the company with the best-designed machine. Michael Dell understood from the start that the PC, pieced together with software from Microsoft Corp. and chips from Intel Corp., would soon be a commodity. With commodities, what matters is price and delivery. Maybe because he didn't know any better, Dell saw the quickest way to achieve both goals was to cut out the middleman.

Which he did by selling over the telephone and the Internet direct from the factory. "Our operating costs for the desktop PC division in the U.S. is 7% of revenue," Dell says. "Compaq will pay a dealer 6% of revenue as a subsidy."

Compaq has tiptoed lightly into direct sales for fear of riling retailers, who provide 90% of revenues. "Our competitors are still prisoners of their history," Dell says. "They're stuck with their dealers."

Michael Dell understands that his competitors will slowly erode the advantage he gained by eliminating the middleman. He's now concentrating on trying to produce more user-friendly boxes. "I'll be the first to admit computers have to get a lot easier to use," says Dell, who spent nearly $300 million on research and development last year. "If we don't improve our products enough, it's going to present an opportunity for someone else. That's how great companies go out of business." ■

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Computer Software

There was plenty of activity in this quintessential Computer Age industry. The Justice Department's attack on Bill Gates' software juggernaut kept Microsoft on the defensive but didn't stop its growth. Rivals that were supposed to be roadkill staged comebacks. Database leader Oracle Corp. rebounded nicely, despite the near collapse of its Asian business at the end of 1997. Even lowly Novell won some plum contracts for its networking software. Open-source software, created by hundreds or thousands of programmers collaborating over the Internet, gave the market a new wrinkle.

Industry Buzz

- Likely 1999 Winners: Siebel Systems, i2 Technologies. Siebel, whose software coordinates and assists corporate sales forces, and i2, maker of supply-chain strategy programs, have sprinted to leads in their markets.

- Look for these upstarts to step on the toes of the "Enterprise Resource Planning" kingpins SAP, Baan and PeopleSoft, which have a tough row to hoe. Their stocks haven't rebounded as strongly as those in other tech sectors.

- Inktomi, the search service, has stayed out of the "portal" fray, choosing to remain independent and to rely on superior technology. Watch for it to add more big Internet sites to its already impressive list of customers.

"The Internet companies? There's no way to forecast when those multiples are going to fall. All the things that are wrong with them now were just as wrong six months a[go]

–Roger McNamee, Integral Capital P[artners]

Profile

Web Warrior

By Josh McHugh

STEVE CASE STOPS SHORT of saying "I told you so," but not by much. Forgive him. The 40-year-old chief executive of America Online has just launched the biggest, boldest software deal of the year, AOL's $4 billion acquisition of Netscape Communications. He has transformed his Dulles, Va.-based company from an embattled service scoffed at by the digerati into the Internet company to beat.

So grant him a little self-congratulation.

"I remember reading that the Internet was going to undermine AOL," Case says. "That was back when we had about 500,000 users. They were saying we were going to fall by the wayside."

Competitors like Compuserve fell by the wayside (it is now part of AOL), but AOL

COMPANY	PROFITABILITY		GROWTH				SALES	NET INCOME	OPER MARGIN	PROFIT MARGIN	DEBT/ CAPITAL
	RETURN ON CAPITAL		SALES		NET INCOME						
	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	latest 12 mos $mil	latest 12 mos $mil	latest 12 mos %	latest 12 mos %	latest %
America Online	def	29.4	120.0	58.1	NM	D-P	2,936	169	14.6	5.8	23.6
American Management	14.2	17.5	24.1	16.0	8.0	500.0+	1,006	49	13.8	4.8	7.7
Ceridian	53.0	97.7	3.6	–5.1	70.8†	500.0+	1,135	574	29.4	50.6	9.4
Computer Associates	18.8	13.7	21.8	16.3	24.6	22.8	4,969	554	49.2	11.2	36.1
Compuware	30.7	36.3	35.9	46.3	31.9	84.1	1,373	260	29.9	18.9	0.5
Electronic Arts	19.7	9.3	21.6	39.9	13.6	14.7	1,019	52	13.5	5.1	0.0
Microsoft	40.1	40.2	32.4	25.5	38.8	57.3	15,307	5,510	58.1	36.0	0.0
Oracle	40.6	34.0	38.0	25.4	41.9	39.5	7,524	1,000	21.9	13.3	8.9
Parametric Technology	27.7	24.7	2.7	–4.1	NM	20.6	1,018	106	30.8	10.4	0.0
PeopleSoft	30.4	37.5	93.5	72.2	80.1	121.9	1,210	157	23.7	12.9	0.0

D-P Deficit to profit def: Deficit NM: Not meaningful †Three-year average. For further explanation, see page 128. *Sources: Forbes; Value Line and Market Guide via OneSource Information Services.*

STEVE BARRETT CONTRACT

AOL's Steve Case
Buying into the Web

now boasts 14 million paying members. For much of the world, AOL and the Internet are inseparable. And AOL isn't chasing the Web, Case will tell you. The Web is chasing AOL.

"Now they're saying on-line services [like AOL] are the future," Case says. "Yahoo and Excite are following the AOL model."

True enough, the Web's top sites are now "portals," each trying to capture and retain as many Web users as possible within the confines of its own brand-soaked cyberturf. AOL has been doing it for years.

AOL lays claim to roughly 33% of U.S. Internet traffic. Earnings have been small, but AOL's cash reserves exceed $1 billion. Perhaps most important, its surging stock price provides abundant currency for acquisitions.

Now the AOL-Netscape deal signals that AOL, once strictly a proprietary "dial-up" system, is embracing a more wide-open, Web-centric approach.

Case puts it more simply: "This deal makes us stronger in the daytime," he says, not one to indulge in industry jargon. Netscape's Netcenter portal has become a hit with business users at work.

Typically, AOL users come home from work and dial in, expecting to hear "You've got mail!," an AOL greeting so familiar that it serves as a new movie title without any need for explanation.

Now Case confronts a challenging year ahead. He must try to push AOL deeper into the black. At the same time, he must make the Netscape deal work.

As AOL plunges into battle with Yahoo and, eventually, Microsoft for ad dollars and a piece of each e-transaction, it must keep improving ease of use and other ways to keep Joe and Jane Customer from defecting to other portals.

"We want to offer the most magical service possible," Case says. "We'll use the technology as a means to an end, but we've gotten here because we figure out what the customer wants, not what the technologists think." ■

Construction

As with most capital spending, the $618 billion construction industry is fated to slow in 1999. Highway construction will keep on rolling along, propelled by a $217 billion federal project over the next five years. Provided interest rates continue to fall, home building should be another bright spot.

Industry Buzz

"Manufactured-housing stocks are selling at ten times earnings. It's as if the market doesn't believe the industry's good times will continue. But with energy costs going down and inflation low, there's no reason 1999 won't be another great year."

–Michael Corelli, securities analyst at Barry Vogel & Associates, a division of du Pasquier & Co. Inc.

- Single-family house construction will be up 11% for 1998, a record. Even though in 1999 it will drop 1%, that will still be the second-best year ever.
- Winners this year will include builders of manufactured homes like Champion Enterprises and Fleetwood Enterprises, which are pushing into the retail segment for the first time.
- Another winner: Vulcan Materials Co., whose $890 million acquisition of CalMat Co. makes it the largest U.S. producer of construction aggregates.
- Likely loser: Fluor Corp., the giant designer and manufacturer of process plants. Oil prices are down 45%, and chemical prices down 30%, meaning companies in those industries will scale back capital spending.

Profile

Make just one thing; make it cheaply

By Jay Akasie

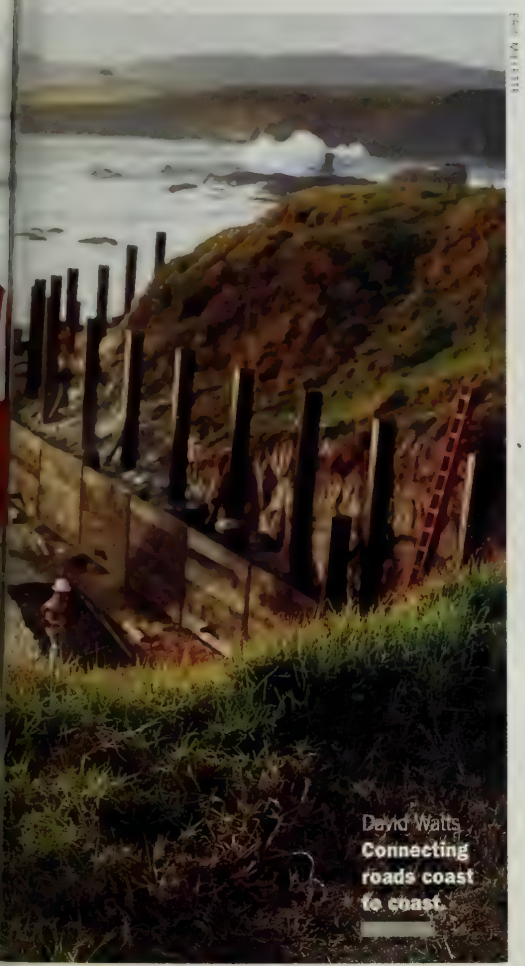
Granite Construction Inc. will pave your driveway for $2,000—or rebuild a chunk of interstate highway in Utah for $320 million. Unlike its much larger competitors that build everything from refineries to pipelines—companies like Morrison Knudsen and Peter Kiewit Sons'—Granite gets the lion's share of its $1 billion in sales building things you drive on. Granite builds roads, parking lots and airport runways well enough to beat out the bigger rivals for some choice projects. Last March, for example, Granite won the job to reconstruct a scenic stretch of Highway 70 running through the Sierra Nevadas. Its $9.7 million bid beat Kiewit's by $500,000.

The road specialty has been paying off well for Watsonville, Calif.-based Granite. Sales have

OMPANY	PROFITABILITY		GROWTH				SALES	NET INCOME	OPER MARGIN	PROFIT MARGIN	DEBT/ CAPITAL
	RETURN ON CAPITAL		SALES		NET INCOME						
	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	latest 12 mos $mil	latest 12 mos $mil	latest 12 mos %	latest 12 mos %	latest %
arlisle Cos	15.5	17.0	18.9	19.5	23.9	23.1	1,456	83	13.1	5.7	43.1
entex	13.4	17.7	8.2	19.5	13.5	55.2	4,476	186	9.3	4.2	14.5
hampion Enterprises	33.5†	33.4	23.6	25.1	40.4	78.4	2,090	94	8.8	4.5	1.2
layton Homes	17.5	16.9	18.6	12.6	20.6	14.3	1,180	141	20.9	12.0	2.2
leetwood Enterprise	17.1	17.1	8.4	14.6	15.5	17.9	3,291	111	10.0	3.4	6.3
ranite Construction	10.4	13.1	15.8	27.1	59.6	68.3	1,198	42	8.3	3.5	18.7
R Horton	11.5	11.3	34.4	37.5	35.3	43.1	2,155	93	8.5	4.3	60.7
lughes Supply	10.5	10.0	29.8	34.3	78.6	37.2	2,396	59	5.6	2.5	45.0
lacobs Engineering	15.0	14.9	13.3	18.0	19.3	16.0	2,101	54	8.3	2.6	12.6
Martin Marietta Mats	16.2*	13.2	17.5	20.1	19.6	12.9	1,016	108	27.6	10.6	31.1
MDC Holdings	8.7	15.3	13.0	21.1	33.8	92.1	1,151	43	7.7	3.7	44.6
Mueller Industries	16.1	16.8	12.1	11.0	36.8	13.9	908	77	14.2	8.5	10.3
NVR	11.7*	23.3	9.3	32.9	45.4†	95.0	1,483	56	8.8	3.8	50.6
Toll Brothers	13.0	11.4	26.9	26.3	29.9	26.4	1,155	83	14.7	7.2	46.3
Universal Forest Prod	13.9	15.0	13.8	12.0	28.5	3.5	1,174	22	5.0	1.8	14.5
Vulcan Materials	18.0	21.6	10.0	5.2	22.0	20.3	1,749	248	26.5	14.2	6.0

*Four-year average †Three-year average For further explanation, see page 128.

Sources: Forbes; Value Line and Market Guide via OneSource Information Services.



doubled over the past five years. Earnings over the nine months through September 1998, $36 million, are 64% better than they were in 1997, and well ahead of where they were in a depressed 1993.

Focus. You hear that theme again and again in the discussion of corporate strategy, and it is an important part of Granite's success. But note the form it's taking here. Unlike, say, car companies that are focusing by outsourcing their parts operations, Granite focuses on a narrow end product. Far from outsourcing its supplies, Granite is going the other way. It has assembled a collection of 30-plus gravel pits and quarries that supply the raw material for roads. It also has its own concrete ready-mix and asphalt plants.

Depending on the project, these raw materials account for as much as 50% of the cost of a road or parking lot. Shaving a buck a ton off the cost of the ingredients can make a big difference in the profitability of a construction project. "We want to bring cost advantages into the business, and that only happens when you produce your own materials," says Chief Executive David Watts, 60.

Watts, a rugged looking Cornell economics major and former Navy SEAL, spent most of his career at a Dallas industrial engineering firm before taking the top job at Granite in 1987. Granite was at a crossroads—then just $380 million in sales, the company hoped to grow beyond its regional base in California and take on larger projects. Shareholders, mostly descendants of the company founder, wanted liquidity, and Watts got them that by taking the firm public in 1990.

Under Watts, Granite has branched into Florida, Utah and Georgia, but it is still rather focused geographically, with its most profitable work coming from within a 30-mile radius of any of its numerous gravel sources. Within those little spheres of influence, Granite can find some room to grow. More than 50% of its revenue comes from projects partly or wholly funded by the Federal Highway Administration, and a recent appropriations bill will boost federal highway spending 26% next year. Watts says he can double revenues again in the next five years. ■

Consumer Durables

The big news here is the trend toward outsourcing a major part of car-building to outside outfits like Tower Automotive Inc. and Lear Corp. That and the strange-bedfellows merger of Chrysler and Daimler-Benz, which may well be the world's first true transborder auto company.

Lear Corp.'s Kenneth Way **Going modular to cut costs.**

Profile

Low-cost supplier

By Terril Yue Jones

IF GM OR FORD has a worker make a car seat, it pays $45 an hour, benefits included. If the auto company contracts with a parts supplier to do the work, the labor cost is more like $27. Therein lies the prosperity of Lear Corp., the largest freestanding supplier of auto interiors.

Unionization doesn't explain the cost discrepancy: Both Lear and auto companies have been organized by the United Auto Workers. But union leverage does explain it. A strike at GM can shut down the company. A strike at a parts supplier might just give GM an excuse to go with another supplier. Also, says David Andrea, chief economist at automotive consultant CSM Corp., Lear squeezes more productivity out of its UAW workers.

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COMPANY	PROFITABILITY		GROWTH				SALES	NET INCOME	OPER MARGIN	PROFIT MARGIN	DEBT CAPIT
	RETURN ON CAPITAL		SALES		NET INCOME						
	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	latest 12 mos $mil	latest 12 mos $mil	latest 12 mos %	latest 12 mos %	lates %
Bandag	23.1	19.6	7.5	35.1	6.1	40.2	1,041	108	14.1	10.4	17.7
Borg-Warner Auto	11.0*	10.9	14.2	5.4	20.4*	38.8	1,815	90	13.7	5.0	28.9
Brunswick	10.5	9.9	12.3	10.7	63.0	21.3	3,905	179	14.3	4.6	26.8
DaimlerChrysler	NA	15.3	6.9	15.7	NM	54.4	136,137	7,664	9.5	5.6	36.2
Ford Motor	11.1	13.1	8.9	–0.2	21.3*	20.7	144,280	6,654	15.9	4.6	68.2
Genuine Parts	18.7	16.4	10.0	7.9	9.0	3.7	6,394	350	10.0	5.5	10.8
Harley-Davidson	26.9	23.2	8.6	14.8	43.0	2.8	1,948	196	19.1	10.1	2.1
Honda Motor	9.1	13.0	8.6	13.0	59.9	15.7	51,905	2,394	10.8	4.6	26.0
Johnson Controls	13.6	14.8	15.7	12.9	19.8	17.1	12,587	338	8.2	2.7	30.4
La-Z-Boy	11.5	12.9	9.5	16.3	11.8	29.6	1,206	57	9.3	4.7	13.8
Lear	14.1	11.1	37.1	19.9	52.5†	6.5	8,297	203	8.2	2.5	51.5
Leggett & Platt	16.0	15.7	19.0	19.2	25.4	22.1	3,301	242	16.4	7.3	28.6
Maytag	12.3	22.3	1.4	24.9	NM	61.6	4,042	270	16.2	6.7	30.5
Meritor Automotive	21.3	27.2	3.9	15.9	20.5	48.5	3,836	147	10.5	3.8	51.3
Modine Manufacturing	16.4	14.7	13.0	5.4	15.0	10.4	1,069	75	15.0	7.0	22.7
Polaris Industries	42.0†	14.6	24.8	5.6	21.8	–58.0	1,125	27	11.6	2.4	9.3
Tower Automotive	19.0†	8.5	86.0*	95.5	86.0†	39.3	1,802	68	13.8	3.8	40.8

NA: Not available. NM: Not meaningful. *Four-year average. †Three-year average. For further explanation, see page 128. *Sources: Forbes; Value Line and Market Guide via OneSource Information Servic*

Industry Buzz

1999'S WINNERS AND LOSERS

• DaimlerChrysler AG: This megamerger created the world's fifth-largest automaker and vastly expands both Chrysler's ability to sell its brands globally and Daimler-Benz's reach inside North America.

• Federal-Mogul Corp.: Just finished selling off its unprofitable auto retail chain in Latin America and is concentrating on its core business of supplying parts for engine systems.

• JPE Inc.: Unable to turn around its troubled Canadian operations, the auto parts firm suffered heavy losses, violated loan covenants and was delisted from Nasdaq. JPE's founder resigned in September and two of its subsidiaries, citing last summer's GM strike, filed for bankruptcy.

• Peregrine Inc.: An example of consolidation not working, this supplier of exterior and interior auto components was formed to take over four GM parts plants. But three of them became big moneylosers; Peregrine closed its two factories in the U.S. and sold one of its two Canadian plants.

Needless to say, the UAW is not happy about outsourcing by automakers—one of the issues provoking a 54-day strike against GM last summer—but the trend continues. GM hived off a piece of its parts manufacturing operations in 1991 as Delphi Automotive Systems. Delphi, in turn, unloaded its seatmaking factories on Lear for a mere $250 million.

The Delphi seat business wasn't making money in GM's hands, but it might, beginning next year, make good money for Lear. "It needs some fixing up, but it's a good business," says Kenneth Way, the 59-year-old chief executive of Lear.

Way, an industrial engineer and Detroit native, joined American Metal Products in 1966 just before it was bought by Lear. In 1988 he and a handful of managers led a $500 million leveraged buyout of what was then called Lear Siegler Seating. They took the company public again in 1994. In the past four years its stock price has doubled, compared to a mere 36% rise at GM.

What works for seats can work for other car parts or subassemblies. Lear has bought up makers of other interior components and now sells completed doors and roof linings, among other things. Lear is the world's fifth-largest parts supplier, holding 30% of the $18 billion interior component market in North America. Revenues have more than doubled to $8.3 billion since 1994. "In an industry not known for acting quickly, Lear is at the forefront of predicting where to be," says analyst Greg Salchow of Roney Capital Markets.

At the moment Lear is in a rough patch. The GM strike and the declining auto market in Latin America both cost it a lot of revenue. Lear is taking a fourth-quarter charge of about $133 million. "The key to our business is flexibility," says Way. "We know when to go on the attack; we know when to pull our horns in."

He is going on the attack to take a piece of the coming market for complete car interior packages—from floor to ceiling to doors. That module market could be worth $112 billion by 2005, and Way seems to be sitting in the catbird seat. ■

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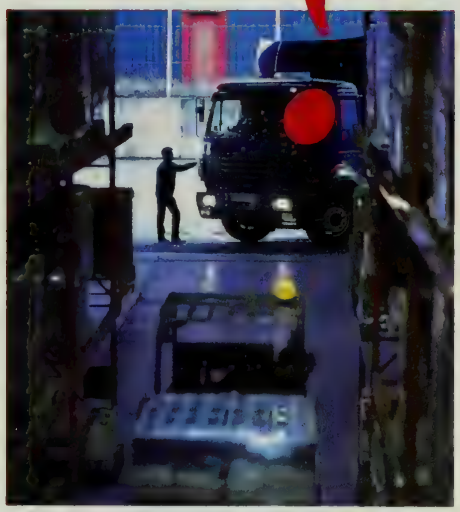

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Energy Distribution

Utility stocks kept pace with the Dow in 1998 after underperforming for 17 years. This once-sleepy industry is rubbing its eyes and gazing into a changed future. Deregulation, first introduced in California, will accelerate this year. Many electric utility executives will thus have to decide whether to stay in the generation business or sell power plants to focus on the slower-growing but less risky business of maintaining transmission lines and reading meters. Electric and gas companies will continue to merge.

Industry Buzz

- Mergerbait? Yankee Energy System, Providence Energy and Washington Gas Light Co. might make attractive targets, says A.G. Edwards' Michael Heim.

- Natural gas companies like El Paso Energy Corp., Enron Corp. and Coastal Corp. are getting in the electric business by brokering kilowatts and by building power plants along their pipelines.

- A new term, merchant plant, has been coined to describe a power plant built to sell in the open market. More than 50,000 megawatts of efficient, new gas-fired power plants have been proposed, amounting to 7% of U.S. generating capacity.

- As markets open, former monopolies are having to sell themselves. Columbia Energy Group just signed a deal with Amway Corp. to market electricity and natural gas across the country. Companies competing in the recently deregulated natural gas market in Georgia have been offering free movie rentals, groceries and energy-management software to customers who switch providers.

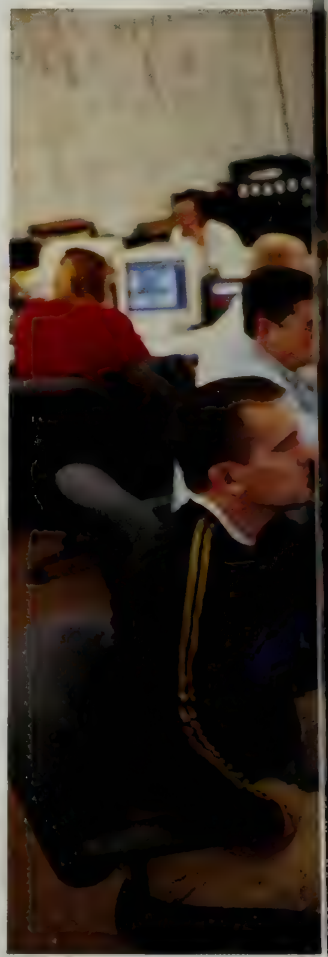
"Vertically integrated electric utilities should largely disappear."

–PaineWebber utilities analysts Barry Abramson and Tracey Lunenburg.

Profile

Risk-taker in a cautious business

By Christopher Palmeri



AS A YOUNG MANAGER at Missouri Public Service in the late 1970s, Richard Green watched Joseph Teasdale get himself elected governor of Missouri on a campaign that called for rolling back electric rates. It was a cheap way to win votes, and Teasdale forgot the pledge when elected. But it left Green burning to find a way to get the company out of the clutches of politicians. The company was more than a job for Green: His great-grandad had founded it, and his father ran it for years.

In 1985, three years after his father died, Green was named chief executive of UtiliCorp United Inc., the fancy-sounding parent company formed to own his dad's old utility, Missouri Public Service. Missouri Public Service was then a smallish, $260 million-a-year utility

COMPANY	PROFITABILITY		GROWTH				SALES	NET INCOME	OPER MARGIN	PROFIT MARGIN	DEBT/ CAPITAL
	RETURN ON CAPITAL		SALES		NET INCOME						
	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	latest 12 mos $mil	latest 12 mos $mil	latest 12 mos %	latest 12 mos %	latest %
CMS Energy	7.8†	7.5	8.7	15.4	16.1*	12.1	5,226	250	24.7	4.8	56.3
DPL	8.1	8.4	3.9	5.5	6.0	5.3	1,306	188	36.2	14.4	36.1
Duke Energy	7.6	8.5	14.1	16.5	8.0	22.2	18,016	1,221	19.0	6.8	32.9
El Paso Energy	6.5	6.1	47.1	19.0	NM	35.8	6,107	216	12.7	3.5	38.9
FPL Group	7.2	8.2	4.2	2.9	7.0	7.8	6,508	661	37.8	10.2	29.6
KN Energy	8.8	13.9	17.9	119.5	22.8	26.5	4,034	92	11.7	2.3	46.8
New Century Energies	7.5	7.8	4.5	8.8	3.7	35.6	3,599	319	25.5	8.9	37.2
Nipsco Industries	7.8	7.1	8.5	26.6	6.2	1.5	2,987	189	22.4	6.3	45.3
OGE Energy	7.2	8.4	1.1	23.8	5.6	31.5	1,746	168	28.2	9.6	36.3
Oneok	9.3	12.5	17.4	58.0	20.6	71.8	1,835	102	16.6	5.6	17.4
Scana	7.1	8.0	5.9	10.3	13.1	25.7	1,656	251	39.8	15.2	37.2
TECO Energy	8.5	8.7	8.1	9.3	7.6	8.2	1,941	223	33.7	11.5	38.1
UtiliCorp United	7.3	7.2	26.5	65.3	15.7	–3.7	12,329	126	3.3	1.0	43.0
Washington Water	7.2	6.0	17.1	187.1	6.8	–24.5	3,148	80	8.1	2.5	42.9
Wicor	9.4	9.2	7.0	–5.1	18.7	0.7	973	47	14.7	4.9	23.2

NM. Not meaningful. *Four-year average. †Three-year average. For further explanation, see page 128. *Sources: Forbes; Value Line and Market Guide via OneSource Information Services.*

ELI REICHMAN

UtiliCorp's Rick Green
Behind him, a trading powerhouse.

serving about 200,000 electric and gas customers in the western part of the state. Green was only 32.

UtiliCorp United then began acquiring other utilities. The company now serves 2.6 million customers in eight states and four foreign countries. It pioneered the business of brokering natural gas in the mid-1980s. The company buys gas from producers and sells it to utilities and other large users. Green added electricity to the mix four years ago. UtiliCorp is now the third-largest wholesaler of natural gas in the country; the fourth-largest in electricity. UtiliCorp's wholesale business produced $25 million in cash flow in 1998 and is growing robustly at around 20% per year.

In the mid-1990s Green dreamed of building a national business selling electricity and natural gas to consumers and businesses under the brand name EnergyOne. He invested nearly $50 million on billing systems, salespeople and advertising. But the kind of deregulation that would facilitate marketing power to consumers across the country has been slow in coming. UtiliCorp exited the national retail business in mid-1998.

Green now admits he was too early—but that's the whole point: In a generally cautious business this man is a risk-taker.

UtiliCorp recently began selling an internally developed energy-purchasing software package to other utilities. It is also developing a business in weather-related futures contracts (FORBES, *July 6, 1998*). Green continues to encourage his team to come up with entrepreneurial ideas.

Green says UtiliCorp's wholesale and international businesses will keep the company's earnings increasing at an 8% clip. The average utility grows at just 2% per year. ■

Energy Extraction

Oil prices plunged 40%, to their lowest inflation-adjusted levels in 25 years. Firms that borrowed heavily to acquire reserves when oil was selling for $18 a barrel were squeezed when it fell to $11. Some will go bankrupt. Only the leanest and most efficient firms can survive: The Exxon-Mobil deal should be seen in this light—as a way of squeezing out duplicative overhead in a low-profit business. Yes, the industry will rise again. The trick will be to get through the next few years.

Profile

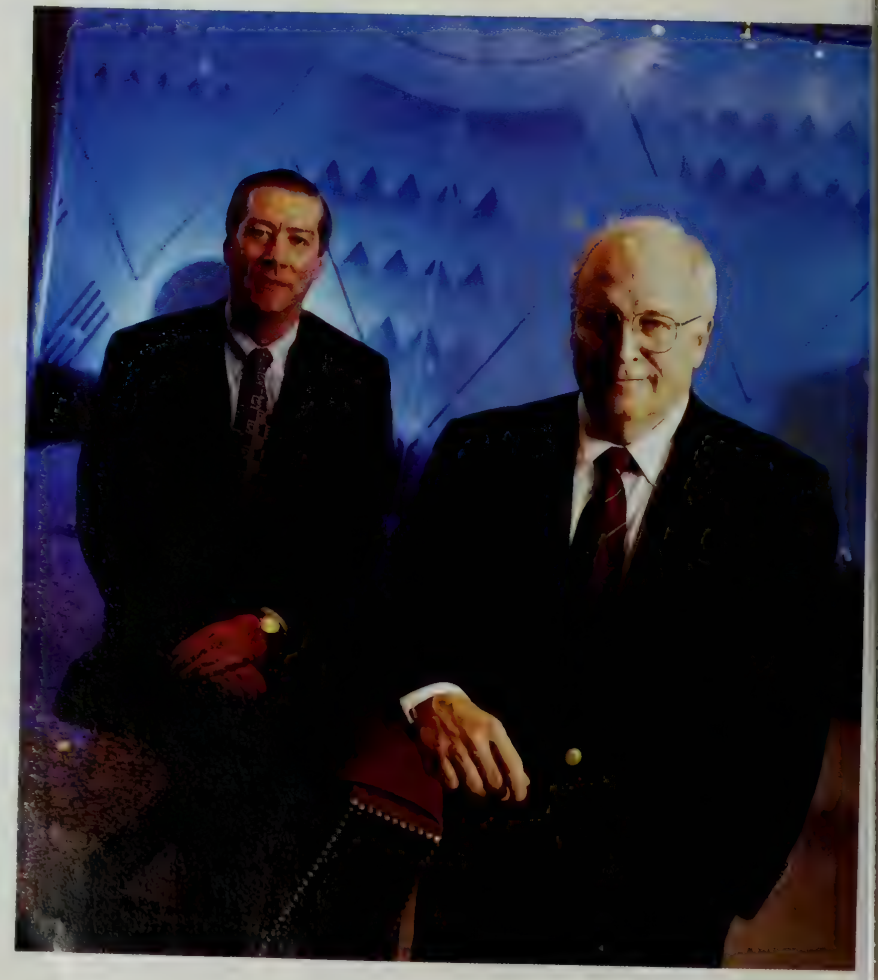
Mr. Outside saves the day

By Daniel Fisher

RICHARD CHENEY raised eyebrows when he stepped in as chief executive of Halliburton Co. in 1995. Sure, the tough-talking former congressman from Wyoming and Secretary of Defense had been around a lot. But what did he know about running an oil business?

Plenty, as it turns out. Since Cheney took charge, Dallas-based Halliburton has transformed itself from a second-tier player into the world's biggest provider of oil-drilling, engineering and construction services, with an estimated $20 billion in revenue this year (1999).

Last year Cheney holed up in a room at the Hotel Crescent Court in Dallas with William Bradford, then chief executive



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	RETURN ON CAPITAL		SALES		NET INCOME						
	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	latest 12 mos $mil	latest 12 mos $mil	latest 12 mos %	latest 12 mos %	latest %
Adams Res & Energy	18.0	9.8	29.1	8.4	46.1	–48.9	1,999	3	0.6	0.2	20.8
BJ Services	8.5	9.9	36.3	4.2	70.9	8.8	1,527	117	20.7	7.7	20.7
British Petroleum	11.1	9.8	6.4	–27.9	31.3*	–23.1	55,783	2,782	14.8	5.0	17.3
Ensco International	14.8	20.1	33.3	22.1	81.6*	62.3	895	305	63.1	34.1	21.3
Exxon	12.1	11.8	4.0	–12.6	12.5	–12.4	106,998	7,410	13.4	6.9	10.4
Global Marine	29.9	21.6	33.5	26.3	NM	–32.4	1,223	248	36.3	20.3	42.3
Halliburton	14.5	5.1	7.3	12.3	NM	–74.9	17,346	178	11.5	1.0	23.3
Mobil	11.4	10.1	2.6	–22.6	18.5	–21.1	49,540	2,560	12.1	5.2	12.7
Nabors Industries	16.1	15.0	30.2	3.2	30.0	26.5	1,063	145	28.0	13.7	19.1
Phillips Petroleum	12.9	8.7	6.0	–20.1	38.2	–30.9	12,660	656	18.1	5.2	30.5
Schlumberger	16.5	15.1	10.8	16.5	14.3	–5.9	11,948	1,109	21.2	9.3	30.2
Smith International	19.4	11.2	54.7	41.3	14.5*	–13.1	2,083	80	15.3	3.9	38.0
Sunoco	6.8	12.6	3.1	–22.0	NM	500.0+	7,315	257	7.3	3.5	32.6
Tesoro Petroleum	14.9	9.6	1.6	25.0	28.5*	–52.4	1,169	32	12.3	2.7	41.5
Tidewater	20.2	27.2	16.9	17.6	59.7	57.0	1,098	320	42.0	29.1	1.8
Tosco	13.0	8.9	45.1	8.0	28.4*	30.4	13,096	263	7.4	2.0	37.6
Transocean Offshore	10.4	12.0	31.9	19.6	71.0	152.2	1,020	287	48.5	28.2	29.0
Weatherford Intl	8.5*	7.8	30.8*	15.4	NM	–12.6	2,138	148	26.3	6.9	28.3

NM: Not meaningful. *Four-year average. For further explanation, see page 128.

Sources: Forbes; Value Line and Market Guide via OneSource Information Service

Industry Buzz

- Independent oil and gas companies plunged 54%, versus a gain of 4.4% for the S&P Midcap Index, while oil service stocks fell 52%.

- The mergers aren't over. With the rise of the Super-Majors, Texaco, Unocal and Arco will be stuck in the second tier, locked out of lucrative projects like the multibillion-dollar drilling, pipeline and refining projects that Saudi Arabia and other countries are expected to offer in coming years.

- Look for oil service firms to be hit hard again. Arthur Smith, chairman of John S. Herold, Inc., thinks oil service expenditure cuts could be as deep as 40% this year if oil prices don't recover.

"Embedded in today's low oil prices is the mother of all oil shocks."

–Matthew Simmons, chairman of Houston-based Simmons & Co. International. He predicts an oil shortage if companies stop drilling new wells to replace rapidly declining reserves.

of Dresser Industries, Inc. That meeting led to Halliburton's acquisition of one of its biggest rivals. With the Dresser purchase, Halliburton leapfrogged longtime industry leader Schlumberger Ltd. in revenue and filled in the last major gaps in its arsenal of technology.

Once seen as badly trailing its competitors in areas such as directional drilling and drilling fluids, Halliburton now has everything it needs to win contracts for projects such as designing, building and operating systems to manage production from oilfields. "What we got [with the Dresser acquisition]," says Cheney, "was a significant improvement in our product lines."

That improvement helped Halliburton lure away a longtime Schlumberger client, Norway's Statoil. For Statoil, Halliburton will develop advanced systems to recover oil from aging fields in the North Sea.

That new contract will help Halliburton weather cutbacks in drilling budgets next year as its customers react to lower oil prices. So will Halliburton's engineering and construction division, which has an $11 billion backlog enough to carry it for at least two years.

"We don't think we're going to see the downside on that part of the business because our customers have to go ahead and develop these projects and try to recognize some cash flow out of the costs they incurred three or four years ago," says David Lesar, Halliburton's president and chief operating officer.

Cheney is generally viewed as Halliburton's "Mr. Outside" to Lesar's "Mr. Inside," with Cheney using his international contacts to drum up new business while Lesar focuses on running the company. "It gets you in the door," Cheney concedes of his old contacts in places like Pakistan and Saudi Arabia, but he adds, a bit snappishly: "It doesn't get you the contracts."

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Entertainment & Information

Thanks to technology, movies have moved into the home: Video rentals in the U.S. last year rose 6%, to $7.9 billion, while video retail sales grew 7%, to $8.9 billion. Together they dwarfed U.S. box office revenues of some $7 billion, though ticket sales were up a healthy 10%. But music hit a flat note—just $12.5 billion for the year. It was "game over" for videogame sales, which fell from a 61% growth rate in 1997 to only 10% last year. Despite mixed signals, Merrill Lynch reports entertainment stocks were up 38% last year, versus a 19% rise in the S&P 500.

Industry Buzz

- Broadcast networks will lose more ground to cable networks this year, but will continue to get the bulk of the ad dollars. Internet hookups will rise 14%, to 33 million homes, and on-line content purchases will grow 24%, to $423 million. On-line advertising will grow 82%, to $3.1 billion.
- Radio will continue to take away ad dollars from newspapers and television, with Salomon's Paul Sweeney predicting greater than 10% growth over last year, fueled by brand positioning for the millennium.

"These companies have run out of things to acquire. They have created these monstrous bureaucracies and they've gotten so strong at building brands that they now have to spend an enormous amount of money just to maintain positioning. There's just too much product of every kind out there.

–Harold Vogel, analyst and author

Profile

Passionate textbook salesman

By Robert La Franco

THE BOOMING U.S. ECONOMY is pouring tax dollars into state and local coffers, legislatures are voting big increases for politically popular educational spending. This is great news for Boston-based Houghton Mifflin, as of last September, the nation's leading textbook publisher. California plans to spend $1 billion on new textbooks in the next fours years, while New York plans to nearly double book spending, to $78 per student, by the year 2001. Florida will also increase spending 10% to nearly $200 million next year.

As of September Houghton Mifflin had a leading 21% market share of new books sold to the country's largest school districts. At year-end they ranked in the top four. With textbooks booming, Houghton Mifflin's revenues have doubled since 1994 to $860 million last year, keeping the company apace with larger rivals like McGraw-Hill, Harcourt Brace, Pearson, and Simon & Schuster so far as grammar textbooks are concerned.

Meanwhile, Houghton Mifflin prepares for the day when Internet and CD-ROM texts overtake paper. Houghton Mifflin has 90 Web sites used as textbook resources by college students and professors. It was the sole on-line major textbook publisher chosen for Illinois grammar schools. It has a minority stake in OnlineLearning.net, which provides Internet courses for UCLA.

For Houghton Mifflin Chief Executive Nader Darehshori, 61, textbooks are more than just a living; they are a passion. Every weekday for six years, as a young Iranian lad, he

COMPANY	PROFITABILITY		GROWTH				SALES	NET INCOME	OPER MARGIN	PROFIT MARGIN	DEBT/ CAPITAL
	RETURN ON CAPITAL		SALES		NET INCOME						
	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	latest 12 mos $mil	latest 12 mos $mil	latest 12 mos %	latest 12 mos %	latest %
Banta	11.2	11.0	14.5	17.9	5.1	29.2	1,343	56	12.8	4.2	21.9
AH Belo	10.9	4.6	18.1	26.0	18.7	–13.5	1,393	77	29.5	5.5	48.0
Walt Disney	10.9	7.5	25.0	2.2	20.9	–5.9	22,976	1,850	39.7	8.1	33.2
Gannett	17.0	18.2	6.4	9.6	19.5	26.1	5,049	973	33.9	19.3	22.7
Hollinger Intl	8.6†	14.3	34.3	6.1	NM	71.4	2,231	197	19.6	8.8	54.3
Houghton Mifflin	9.5	9.0	12.8	7.3	17.1	–3.8	848	45	23.5	5.4	37.6
Knight-Ridder	15.9	13.6	4.3	13.8	22.0	0.7	3,092	389	22.4	12.6	42.0
McGraw-Hill Cos	18.2	16.8	11.4	6.6	19.8	–37.1	3,692	334	23.2	9.1	27.5
Media General	11.5	7.0	9.3	11.3	23.9	32.8	965	69	26.6	7.1	57.6
Meredith	20.4	19.5	4.5	15.6	38.3	–14.6	1,025	84	22.0	8.2	29.8
New York Times	7.9	12.4	9.6	3.8	NM	19.5	2,923	282	23.4	9.6	22.3
Tribune	15.7	12.7	5.7	11.8	23.8	14.5	2,926	414	29.9	14.2	34.7
Viacom	6.2	4.2	56.3	6.0	72.7	D-P	13,785	432	12.4	3.1	38.9
Washington Post	17.8	36.2	6.5	5.4	15.8	73.7	2,041	444	24.4	21.8	0.0
World Color Press	6.6	7.5	25.1	18.2	52.3†	31.6	2,273	69	14.9	3.0	59.2

D-P Deficit to profit NM Not meaningful †Three-year average For further explanation, see page 128.

Sources: Forbes; Value Line and Market Guide via OneSource Information Services.

Nader Darehshori

More a passion than a living.

worked a few hours in the family apple orchard and then walked to the one-room schoolhouse of a small town in southern Iran: one blackboard, one teacher and a handful of outdated textbooks. That was a half-century ago.

As an educated man, Darehshori left Iran, but since the mad mullahs took over, he fears returning. In 1966 he became a textbook salesman at Houghton Mifflin, and in 1990, when he was 52, he was made chairman and chief executive at the venerable publishing firm.

As a memento of his homeland he has planted two apple and two cherry trees in the backyard of his Wellesley, Mass. home. But his biggest harvest is the satisfaction he gets in advancing the cause of education—so painfully won by that long-ago farm kid in a distant land. Education was the boy's inspiration. ■

Financial Services

They're up. They're down. They're up. Despite the market free fall in the third quarter, falling interest rates and robust markets are causing most financial firms to have near-record years. Mutual fund assets now exceed $5 trillion. Merrill Lynch has over $1.4 trillion in assets in its client accounts. If it were a country, Citigroup's revenues would rank it above Pakistan in terms of GDP.

Profile

Marching to its own drummer

By Matthew Schifrin

T. Rowe Price's George Roche **Tortoise beats hare.**

YOU WANT ACTION? Take a look at financial services, once a backwater. In 1998 stocks shot up more than 20%, then plummeted nearly 20%, and are now back up over 20%.

There's good and bad news. Interest rates have fallen nearly 200 basis points, yet consumer bankruptcies continue at a record pace. The Asian crisis spread to Russia and Long-Term Capital clobbered giant global financial institutions like Merrill Lynch.

For the past few years financial services have been a ten-ring circus. You wouldn't know it, though, in the serene harborfront office of George Roche, 57, chairman of Baltimore-based T. Rowe Price. The only drama in the building is rehearsals for the annual Christmas skits, where analysts and portfolio managers get onstage to lampoon their bosses.

Yet Roche's mutual fund company, with $130 billion in assets and 75 funds, has averaged a return on capital of nearly 39% over the past five years. That's better than Charles Schwab, Citigroup and Merrill Lynch. Price's stock has climbed twelvefold since its 1986 public offering, and even during the third quarter's market panic its earnings rose 4%.

"We are successful because we don't do things that are bold; we do things that are good for our clients," says Roche.

While $715 billion (assets) Fidelity churns out new funds, products and even fund managers at a dizzying pace and $420 billion Vanguard Group obsesses over indexing and low fees, T. Rowe Price offers its investors a relatively small menu of funds with good risk-adjusted

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COMPANY	PROFITABILITY		GROWTH				SALES	NET INCOME	OPER MARGIN	PROFIT MARGIN	DEBT/ CAPITA
	RETURN ON CAPITAL		SALES		NET INCOME						
	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	latest 12 mos $mil	latest 12 mos $mil	latest 12 mos %	latest 12 mos %	latest %
Advanta	13.6	21.1	32.0	–27.6	14.3	500.0+	870	487	16.0	55.9	52.7
American Express	14.6*	14.3	5.0	8.0	21.5	0.6	19,980	2,104	18.3	10.5	45.4
Capital One Financial	13.6†	11.3	48.5	40.4	33.7	52.1	2,364	261	29.2	11.0	72.2
Countrywide Credit	11.2	8.4	21.1	50.6	20.0	11.8	2,794	351	31.3	12.6	71.1
AG Edwards	20.0	20.1	12.7	20.2	16.8	25.4	2,176	294	23.8	13.5	0.0
Franklin Resources	22.8	22.3	17.2	19.1	22.3	15.3	2,577	500	31.8	19.4	19.7
Legg Mason	13.3	15.2	20.8	30.2	21.5	32.5	978	87	19.4	8.9	15.5
MBNA	16.4	13.0	31.7	15.8	29.9	24.4	4,952	726	35.8	14.7	72.7
MGIC Investment	22.9	22.3	22.2	13.4	26.2	20.7	951	372	58.8	39.1	21.0
Morgan Stanley, DW	10.8*	11.5	16.1	18.2	19.4	33.9	30,450	3,000	20.9	9.9	61.8
T Rowe Price	38.7	35.4	24.5	21.3	30.4	29.4	858	170	39.9	19.8	0.0
Providian Financial	36.9†	37.2	19.7	51.6	22.8	39.6	1,770	256	25.8	14.4	31.3
Raymond James Finl	23.7	21.5	19.9	20.7	19.0	–6.3	1,083	93	17.3	8.6	4.1
Charles Schwab	26.9	21.8	26.5	19.5	26.2	14.3	3,199	305	21.4	9.5	19.2

*Four-year average. †Three-year average. For further explanation, see page 128.

Sources: Forbes; Value Line and Market Guide via OneSource Information Service

Industry Buzz

- Megamergers like Citigroup's have many in the industry spooked. But expect more to come. Merrill Lynch, J.P. Morgan and American Express are possible merger candidates.
- Year 2000 computer problems will begin to bubble up as thousands of financial institutions and their clients rush to get their systems in order.
- Expect an exodus of talent from BankAmerica as Hugh McColl's heavy-handed tactics reshape this once great franchise.
- A big winner for 1999: Charles Schwab, which has successfully established dominance in mutual funds and the on-line discount brokerage business.

"It has been an awesome year for us day traders. I don't care whether it's a bull or a bear, as long as I have something to trade. My best stocks were Onsale, EntreMed, Amazon, Yahoo and Excite."

–day trader Serge Milmai

returns. Unlike many, the Price funds stick with their declared objectives, rarely invest beyond what they set out to invest in, rarely make big concentrated bets and are run by seasoned pros: T. Rowe fund managers have an average tenure of 11 years.

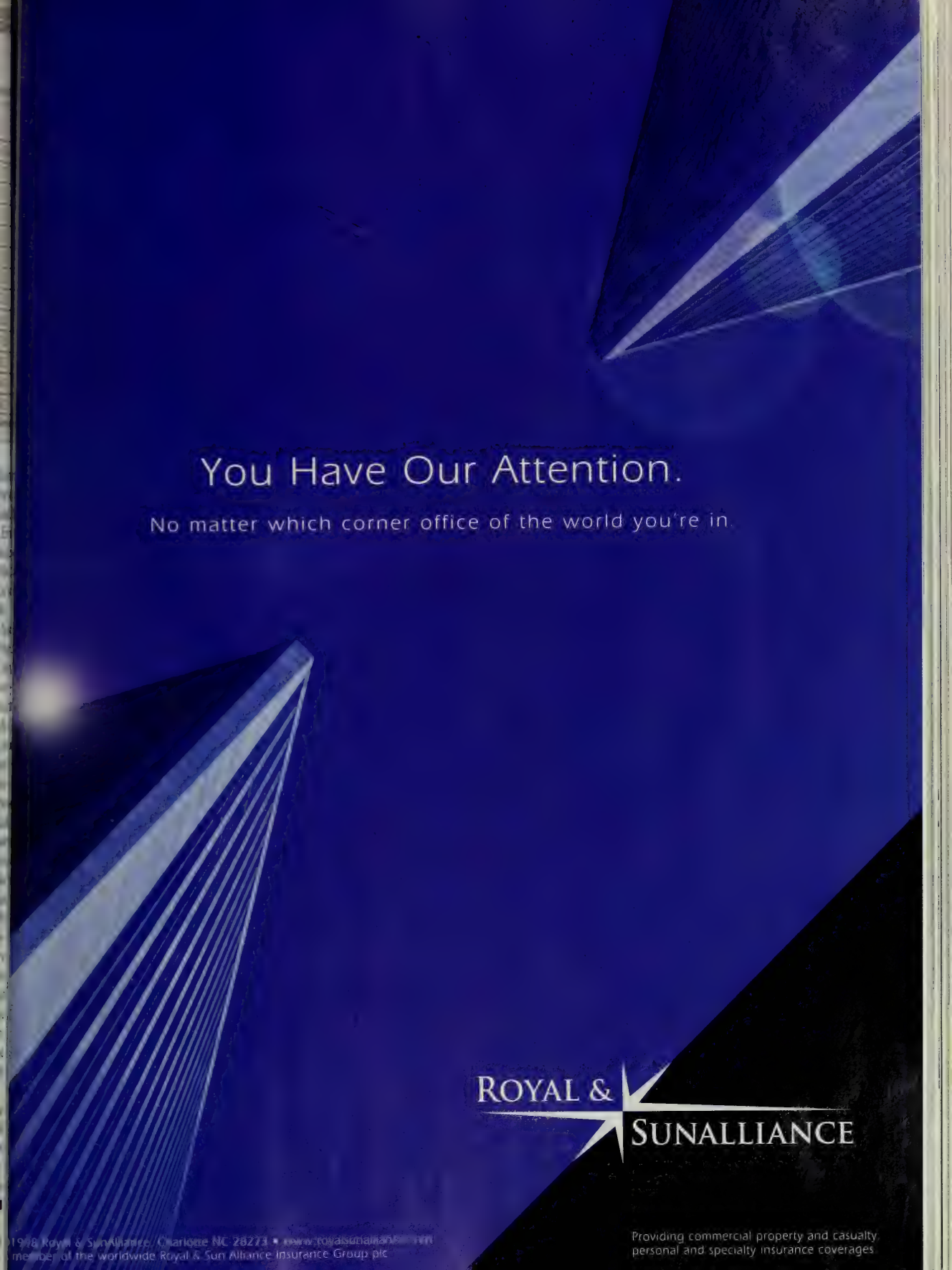
Indeed, 19 T. Rowe Price funds were on the Forbes 1998 Best Buys lists. One key to T. Rowe's success is teamwork. No ego-inflated superstar managers here. Roche shares his authority equally with James Riepe, vice chairman in charge of marketing, and David Testa, chief investment officer. Each earned the same $2.5 million in compensation last year. That's a nice reward, but it's not—after taxes—the stuff of ostentatiously lavish living.

The company has a long institutional memory. Roche was hired by founder Thomas Rowe Price Jr. himself, one of the pioneers of growth stock investing—and a frequent contributor to FORBES. In 1968 Roche was just out of Harvard Business School when Rowe Price decided that because of President Johnson's "Great Society" policies and government spending on the Vietnam War, the U.S. was in for a dose of inflation. Price hired Roche to analyze metals, mining, forest products and other inflation hedges and made hir portfolio manager of a nev fund called the New Era Fund

Price was right and New Er achieved stellar performanc during the 1970s and 1980s Investors rewarded Price' no-load funds with their cash.

Certainly Roche and hi board—who control 17% of th company—could cash out b selling the firm to a financial ser vices conglomerate but tha wouldn't be in the Price tradi tion. Old Rowe Price gloried ir the title of "investment coun selor" and that's what the com pany still is. Roche also sees nc need to rush into other financia businesses. He notes that mos financial firms—from broker like Goldman to bankers like Citigroup and card companies like American Express—still rely on transactions to generate revenues. Which means they have tremendous overhead that can quickly turn into a burden if times turn bad. But even if the inflow of new funds dries up, investment counselors still have regular income from the money under management.

"When we come into the office and turn on the lights, all of our revenues are already in hand. That is why [other financial service companies] want to be in our business," he says. ■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Food Distributors

Did somebody say indigestion? With the exception of McDonald's, Outback Steakhouse and a few others, restaurant operators suffer as too many seats compete for too few diners. Those who hunger for more business include Boston Chicken, Rainforest Cafe and Au Bon Pain. They all had drops in same-store sales in 1998. In supermarkets, it was a consolidation year, with $13 billion worth of mergers. Albertson's, Kroger and Safeway now stand alone as the big three.

Industry Buzz

• The National Restaurant Association projects a 4.6% rise in restaurant industry sales this year, compared with 1998's 4.7%.

• Keep an eye on Wal-Mart this year. It will test its new 40,000-square-foot supermarket—the "Neighborhood Market." Will its aggressive pricing and distribution skills give the competition fits?

"Half the economists are arguing things are great; the other half think we're going into a recession, which would be bad for restaurants initially. Long term, it would be a positive because a recession would act as a catalyst to speed up consolidation—poorer concepts would end up losing money and exiting the supply pool, and the stronger players would benefit."

–Michael Fineman, research analyst at Raymond James

Profile

Beef and boomerangs

By Erika Brown

IN THE OVERCROWDED, cutthroat restaurant business, you need a gimmick. Chris Sullivan's gimmick is Australia—you know, *Crocodile Dundee* stuff. Sullivan's Outback Steakhouse serves slabs of high-grade beef in dining rooms festooned with surfboards, stuffed kangaroos and boomerangs. Average check: $17 per diner. Annual gross: $1.3 billion.

It matters not that Sullivan, now 50, had never been to Australia when he came up with the idea in 1987. A 25-year veteran of the restaurant business, including a stint as a Chili's franchisee, Sullivan was looking for a new theme restaurant concept. Paul Hogan's *Crocodile Dundee* films were the rage. How about an eatery that appealed to rugged guys who like to gnaw on chunks of barbecued meat?

A blond, rugged type himself, who favors T shirts ove ties, Sullivan tracked down store in Washington D.C. tha carried Australian maps, photo and books. He and a friend Robert Basham, another Chili's franchisee, sold their franchise and opened their first Outback in Tampa in 1988. Basham is now president of Outback.

There was nothing authentically Australian about it, but that didn't matter. Sullivan attached cutesy Australian-sounding names to standard American fare: Grilled shrimp became Shrimp on the Barbie. Fried onions became Bloomin' Onion. New York cut became the Melbourne. Instead of just Budweiser, Foster's.

Sullivan and Basham had learned another important lesson from their days in the fast-food trade: Management turnover is costly. So they cut lucrative deals for prospective franchisees. Outback managers put up $25,000 of their own money and sign a five-year employment contract. They get a base salary of only $45,000, but they also get 10%

COMPANY	PROFITABILITY		GROWTH				SALES	NET INCOME	OPER MARGIN	PROFIT MARGIN	DEBT/ CAPITAL
	RETURN ON CAPITAL		SALES		NET INCOME						
	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	latest 12 mos $mil	latest 12 mos $mil	latest 12 mos %	latest 12 mos %	latest %
Albertson's	19.5	16.8	7.4	7.9	13.3	11.1	15,623	551	8.6	3.5	37.8
Avado Brands	12.2	13.1	39.0	23.4	24.4	102.6	904	70	10.8	7.7	34.8
Bob Evans Farms	10.3	11.2	6.1	8.3	NM	34.3	920	53	13.0	5.8	0.3
Brinker International	10.2	10.3	17.9	16.3	NM	21.0	1,631	73	12.9	4.5	20.4
Buffets	9.8	12.4	26.0	7.1	14.5	45.2	852	37	12.0	4.4	11.7
Casey's General Store	10.4	10.5	11.8	0.7	19.5	21.8	990	37	9.9	3.8	19.5
CKE Restaurants	13.6	13.1	15.5	106.6	NM	115.6	1,675	71	12.4	4.2	49.9
Cracker Barrel	13.9	13.3	20.5	15.1	16.5	16.5	1,356	107	15.8	7.9	6.9
Food Lion	11.5	14.1	6.7	5.4	NM	81.6	10,264	275	7.3	2.7	37.0
Hannaford Bros	10.9	9.3	10.3	7.2	6.0	–14.3	3,344	68	8.2	2.0	31.4
McDonald's	13.1	12.4	10.9	7.8	12.0	–1.8	12,153	1,613	31.4	13.3	37.4
Outback Steakhouse	30.4	19.3	54.6	19.7	39.3	0.5	1,312	76	15.8	5.8	7.0
Performance Food	13.5	9.2	29.9	33.7	39.9	16.8	1,490	15	2.5	1.0	32.3
Richfood Holdings	18.7	12.1	7.4	5.3	32.6	–18.7	3,556	54	4.8	1.5	67.0
Royal Ahold	9.9	6.5	15.9	38.4	16.0	37.9	26,642	375	6.0	1.4	33.7
Ruddick	10.1	9.2	7.1	8.1	10.6	–2.0	2,487	47	6.0	1.9	29.0
Safeway	19.3	16.7	7.1	20.6	46.8	37.4	24,347	767	8.4	3.2	45.5
Sysco	14.5	15.3	9.1	7.5	10.4	7.1	15,692	331	5.0	2.1	35.0
Whole Foods Market	7.2	16.3	25.7	24.4	NM	70.4	1,390	45	8.1	3.3	37.4

NM Not meaningful. For further explanation, see page 128

Sources: Forbes, Value Line and Market Guide via OneSource Information Services.

DAVID CARLIER

Chris Sullivan
Throwing more shrimp on the barbie.

of cash flow. Managers at Outback's most popular locations thus make as much as $150,000. They rarely leave: In contrast, the restaurant industry has an annual average manager turnover rate of 30%.

Unlike many theme restaurants, which often start fast but burn out quickly—consider Planet Hollywood—Outback is still going strong ten years later. Competitors Lone Star Steakhouse and Rainforest Cafe reported same-store sales declines of 8% and 7% in the first three quarters of 1998. Outback's five-year return on capital at 30% and five-year revenue growth at 55% makes it number one in the restaurant industry.

By 2000, there will be 600 Outbacks in the U.S. and 50 overseas. The U.S. market is pretty well saturated. So Sullivan and Basham have a new formula. This time it is basic Italian food. In 1993 the company bought Carrabba's, a mid-priced Italian restaurant chain, and the rights to expand the concept, for $12 million in cash. After losing $5 million in 1997, they closed nine units last year and are remodeling the existing 65.

Last year Sullivan also started a catering arm, serving Outback's signature fare. He isn't finished. Sullivan wants to buy a chain geared toward the upscale/casual market. With debt at 7% of capital and $37 million in cash, Outback is in a good position to buy, but there isn't a lot to choose from. Crocodile Dundees don't come along every day.

Food, Drink & Tobacco

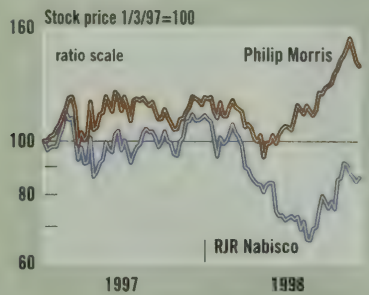
Recession-proof no longer: Tobacco, soda and name-brand cereal all had a bad year. The tough outlook for U.S. and Russian tobacco markets forced RJR Nabisco to take a $390 million pretax charge and cut 4,200 jobs. November's $206 billion tobacco industry settlement to be paid over 25 years will hurt sales, too, although the lawyers' fees will, of course, just be passed along to smokers. Coca-Cola, Warren Buffett's favorite growth stock, was expected to post a 25% decline in fourth-quarter profit. Private-label cereal continued to hurt Kellogg.

Industry Buzz

- Look for further growth in private labels. This could hurt companies like Campbell Soup and H.J. Heinz because their prices relative to private labels are high.
- Likely 1999 winner: Philip Morris. Wall Street likes its strong global position in both food and tobacco. Gaining share in all its tobacco markets. Strongest competitive position to weather the tobacco settlement.

Separation

Shares of Philip Morris grossly outperformed RJR Nabisco shares in 1998.



Source: FactSet Research Systems.

Profile

Down on the farm and in the lab

By William Heuslein

"WE KNOW VIRTUALLY every customer on a first-name basis," says Charles Johnson, a soft-spoken, low-key man who runs an old seed company in Des Moines, Iowa.

Nothing out of the ordinary for a pokey midwestern business, right? Well, Johnson's outfit, $1.8 billion (sales) Pioneer Hi-Bred International, just happens to be the world's largest genetic seed company. From its founding in 1926 by Henry A. Wallace, who would later serve as Secretary of Agriculture and then Vice President under Franklin D. Roosevelt, Pioneer has literally pioneered the production of hybrid seed corn. This is done by mixing and matching different strains of ordinary varietal corn, each c which has been inbred.

This is a highly sophisticate business on the leading edge c agricultural technology. Chuc Johnson, a 60-year-old nativ Iowan, has work-booted employees out in muddy field chatting up farmers. But they'r wielding handheld computers Elsewhere he's got biochemist and molecular geneticists work ing in state-of-the-art laborato ries and research facilities Trained himself as an accoun tant, Johnson has invested $1 billion in the business over the past three years, much of i toward agricultural research.

Pioneer can invest like that because of its enviable track record. Its five-year average return on capital is 22.3%. Its net margin for the past year equaled 14.7%, compared with 11.2% for Philip Morris.

Deep pockets have been buying into this business, attracted by the science generating those numbers. Chemical giant DuPont spent $1.7 billion in 1997 for a 20% stake in Pioneer.

One competitor, Monsanto,

COMPANY	PROFITABILITY		GROWTH				SALES	INCOME	MARGIN	MARGIN	CAPITAL
	RETURN ON CAPITAL		SALES		NET INCOME						
	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	latest 12 mos $mil	latest 12 mos $mil	latest 12 mos %	latest 12 mos %	latest %
Anheuser-Busch Cos	14.5	14.2	3.8	0.9	7.6	2.5	11,143	1,212	25.4	10.9	43.4
Brown-Forman	18.9	19.4	3.7	5.7	3.1	9.9	1,709	194	21.5	11.4	4.9
Campbell Soup	28.3	33.5	5.5	–0.1	16.6	–13.0	6,687	701	26.5	10.5	57.5
Canandaigua Brands	7.3	9.7	28.8	6.8	27.7	55.7	1,268	57	12.8	4.5	38.8
Coca-Cola	49.9	44.2	8.3	2.4	17.0	–7.9	19,056	3,753	30.7	19.7	7.6
Dole Food	10.7	12.4	7.0	7.9	19.5	31.3	4,471	144	7.7	3.2	56.9
Flowers Industries	11.0	18.8	9.7	120.5	13.5	33.4	3,181	81	10.3	2.5	54.4
General Mills	20.9	21.6	3.0	6.6	4.5	–10.3	6,090	433	18.9	7.1	72.0
HJ Heinz	14.3	17.2	6.7	–1.9	NM	111.1	9,204	772	19.3	8.4	56.4
Hershey Foods	16.3	18.1	5.5	4.5	5.3	16.2	4,438	347	18.4	7.8	44.8
Interstate Bakeries	11.8	15.4	29.7	2.1	43.9	22.3	3,291	133	10.3	4.0	33.4
Lancaster Colony	25.0	22.9	9.4	7.9	15.1	4.7	1,016	96	18.6	9.4	6.5
Loews	12.5	9.2	9.1	6.7	24.9*	43.4	18,606	1,074	1.7	5.8	30.5
PepsiCo	13.8*	16.9	8.8	3.4	NM	67.2	21,411	2,078	19.2	9.7	34.5
Philip Morris Cos	23.3	24.9	2.3	2.3	9.2	–1.4	57,053	6,393	24.0	11.2	42.3
Pilgrim's Pride	9.3	13.4	9.6	4.2	NM	21.9	1,332	50	8.3	3.8	40.8
Pioneer Hi-Bred Intl	22.3	22.9	6.6	2.9	12.0	11.1	1,835	270	24.5	14.7	0.4
Smithfield Foods	10.5	9.6	31.2	–5.0	60.5	30.3	3,710	58	4.5	1.6	59.5
Unilever NV	16.6	21.6	4.1	7.7	17.7	196.1	49,838	5,581	10.7	11.2	11.1
Universal	15.1	18.8	8.2	–4.0	21.2	19.3	4,143	136	7.8	3.3	29.7
UST Inc	92.1	85.4	6.9	1.5	7.4	2.0	1,377	456	55.5	33.1	14.8
Wm Wrigley Jr	31.1	29.2	8.6	4.7	11.5	12.5	2,004	296	23.7	14.8	0.0

NM Not meaningful *Four-year average For further explanation, see page 128.

Sources: Forbes; Value Line and Market Guide via OneSource Information Services.

Pioneer Hi-Bred's Charles Johnson
High tech on the farm.

recently paid $2.3 billion for the 60% that it didn't already own of DeKalb Genetics, which is second in market share to Pioneer but not nearly as profitable.

Pioneer has a 42% leading share of the hybrid seed corn market in North America. The target for 1999: gain three percentage points for this business, which accounts for more than 50% of Pioneer's total sales.

New products will make that happen. Johnson plans to introduce 50 new corn hybrids this year—adding to the 62 new ones that came out over the two previous years. About 70% of 1999's North American seed volume is expected to be from products introduced since 1997, up from more than 40% in 1998.

Farmers base their buying largely on which seed yields the most bushels per acre. Pioneer's yield advantage is the amount of extra corn a farmer can expect if he buys Pioneer's premium-priced seeds. Pioneer's average corn seed yield advantage last year was an estimated 5.8 bushels per acre higher than the average of the competition.

Because most of his customers are feeling the pinch of lower prices for their own products, Johnson has been aggressively extending them generous credit terms: financing, for instance, at three percentage points below prime for qualified customers. And this year he is either holding or lowering prices for many seed products. Still, operating margins this year should widen because of a shift in the sales mix to higher-margin products.

A point Johnson returns to constantly is that nothing beats direct contact with his customers, something he does a lot of. "We earn their respect and loyalty," he says.

He likens this to his volunteer work with youth gang members in Des Moines. "The most significant thing you can do is listen to what they have to say, and learn from what they are saying to you. If you [do that] the issues you have to address become pretty clear. It isn't esoteric." ■

JOHN WETMORE,
PRESIDENT AND CEO OF IBM CANADA

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ONTARIO'S WORKFORCE IS AMONG

THE BEST IN THE WORLD."

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Forest Products & Packaging

The Asian crisis is reverberating in our timberlands. The price of northern bleached softwood kraft pulp, a key product, fell to $500 a ton last year, from $610 in 1997. The Japanese aren't buying as many logs as they used to. Lumber producers got a 3% price boost from the 1.6 million U.S. housing starts, up from 1997's 1.5 million. But a slowdown this year would end the rise.

Industry Buzz

- For the year ended in December, Standard & Poor's index of paper and forest product stocks fell 1.1%, versus the 20% gain made by the S&P 500.
- Look for more mergers on the heels of the International Paper and Union Camp deal. Likely takeover candidates include Rayonier, Boise Cascade and Temple-Inland.
- Papermakers will increase their capacity by just 1% next year, well down from the 2.4% average growth rate of the last decade.
- The lumber price runup, brought on by a vibrant U.S. home building market, is almost certainly over. With domestic economic growth slowing, growth in housing starts here is unlikely. Asia's still on its back.

"Consolidation could save the day. But it is not happening fast enough."

—Lehman Brothers analyst James Flicker

Profile

Smoothing out the cycles

By Stephane Fitch

IT SAYS SOMETHING about the depressed state of paper prices that the collection of Platinum Companies in the table have profits that would put them at the bottom of the heap in almost any other industry. The Mead Corp. deserves recognition merely for consistently making money in this difficult business. In 1997 Boise Cascade and Georgia-Pacific earned little of their profits from paper. Mead probably netted $150 million on $3.8 billion of almost pure paper revenue in 1998.

Paper manufacture is brutally cyclical because the machinery is so expensive. Once you have spent the money to build a plant, you run full bore, even if prices are depressed, because you have the depreciation charges no matter what you do. All your competitors are, of course, doing the same, depressing prices further. And then, despite your misery, yo order expensive new plants o the theory that the market wi have turned by the time th plants come on-line.

No more of that, vows Chie Executive Jerome Tatar, wh took the top job in 1997 afte nearly a quarter-century at th Dayton, Ohio company. Tata kept the capital budget stead in 1997 at 1.5 times depreci tion and amortization, com pared with 2.2 at Westvaco an 2.3 at Boise Cascade. The on new Fourdinier machine tha Mead has built in this decad makes corrugated paper i Stevenson, Ala.

Instead, Tatar has focused o improving productivity at hi eight mills. As an example o the litany of small changes tha affect a company's fortunes consider the Mead mill nea Phenix City, Ala. that make paperboard for soda cartons Starting in 1992, the company cut 91 of the mill division's 526 white-collar jobs. Mead closed a satellite plant in Asia, where it had been sending the raw cartons to be folded, and brought that work back to Alabama. Engineers tweaked the machinery to add another 220,000 tons to the mill's

COMPANY	PROFITABILITY		GROWTH				SALES	NET INCOME	OPER MARGIN	PROFIT MARGIN	DEBT/ CAPITAL
	RETURN ON CAPITAL		SALES		NET INCOME						
	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	latest 12 mos $mil	latest 12 mos $mil	latest 12 mos %	latest 12 mos %	latest %
Bemis	14.2	12.7	10.1	–0.8	17.6	10.4	1,842	114	16.0	6.2	33.4
Consolidated Papers	10.6	6.1	15.3	32.2	26.8	3.6	2,027	124	21.9	6.1	47.4
Crown Cork & Seal	8.8	5.0	19.6	–2.0	12.5	–35.2	8,358	192	16.7	2.3	45.7
Mead	9.2	4.1	1.3	–16.9	24.2	–23.4	4,143	113	15.0	2.7	32.7
Owens-Illinois	10.8	11.2	4.3	13.1	45.4	35.9	5,097	348	22.5	6.8	63.4
Rayonier	7.6	8.6	4.3	–8.4	NM	D-P	1,025	75	23.1	7.4	40.0
Rock-Tenn	9.1	6.9	14.6	16.6	NM	161.0	1,294	42	14.3	3.3	48.7
Sealed Air	13.6	7.1	9.3	24.9	NM	–46.7	2,271	71	21.5	3.1	30.7
Tenneco	8.8†	8.8	15.4	7.8	11.0	57.0	7,588	391	15.5	5.2	40.7
Willamette Inds	9.5	4.2	8.7	7.9	NM	30.3	3,674	103	17.2	2.8	44.1

D-P Deficit to profit NM Not meaningful †Three-year average For further explanation, see page 128. *Sources: Forbes; Value Line and Market Guide via OneSource Information Services.*

740,000-ton annual output. Result: The plant's earnings have gone up 71% since 1992.

Mead's payroll has shrunk from 19,000 employees to 14,000 since 1992. The job cutting hasn't been easy for Tatar, the son of a Pittsburgh steelworker. He sold an aging, unproductive plant in Kingsport, Tenn. Among those later let go were a dozen friends on the mill floor and in the executive offices.

More shrinking is in order. Tatar plans to reduce Mead's white-collar work force of 5,000 by 7% by the middle of this year.

In years gone by Mead attempted to defend itself from the cyclicality of the paper business by getting into other ones. It's going the other way now. Three years before Tatar became chief executive, Mead sold data company Lexis-Nexis for $1.5 billion. Tatar continued the nonpaper purge, selling Mead's distribution arm, Zellerbach, last year for $263 million. (That sale contributed to a one-time pretax charge of $80.8 million.) Says Tatar: "We've got a strong paper business, and we only want to play to our strength." ■

Health Care Products

Drugmakers spent $1.3 billion last year in consumer advertising. The money paid off—Viagra (impotence), Claritin (allergies) and Propecia (baldness) being the most spectacular successes. Led by a string of new FDA-approved drugs from Genentech, Immunex, Centocor and others, biotech bounced back after years of producing a lot of neat science but few product breakthroughs.

Industry Buzz

- In 1990 the drug industry put roughly $8 billion in research and development into its collective pipeline. In 1998 that figure jumped to $21 billion; Pfizer and Merck alone accounted for a quarter of that total. Pipeline prospects have become a pivotal valuation tool.

- The COX-2 inhibitors by Monsanto and Merck usher in a new class of pain therapy for millions of arthritis sufferers—and could give their makers a bona fide blockbuster.

- Genentech just introduced the first gene-targeted breast cancer therapy, Herceptin (HER-2), which will exemplify the new wave in cancer therapy.

"There are expectations of these drug companies to continue 20%-plus growth, so they've got a real 'What do you do for an encore?' problem to solve."

–George G. Smith III, partner, global pharmaceuticals, Andersen Consulting

Profile

Sow's-ear-into-silk-purse tale

By Stephan Herrera

FOUR YEARS AGO Morris Plains, N.J. pharmaceutical behemoth Warner-Lambert was regarded with contempt on Wall Street. Its number one prescription drug, the cholesterol medication Lopid, was about to come off-patent, imperiling the only bright spot. Regulatory problems and a product recall, which cost them an estimated $1 billion, had brought the company to the edge of disaster. Its product lines were a ho-hum hodgepodge of everything from Listerine to prescription drugs. No new products were even close to being market-ready.

"Things had become so bleak that everybody told me to sell the company while we still could," recalls Melvin Goodes, 63. "Or at least get rid of the pharmaceutical division and stick to mouthwash."

COMPANY	PROFITABILITY		GROWTH				SALES	NET INCOME	OPER MARGIN	PROFIT MARGIN	DEBT/ CAPITAL
	RETURN ON CAPITAL		SALES		NET INCOME						
	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	latest 12 mos $mil	latest 12 mos $mil	latest 12 mos %	latest 12 mos %	latest %
Abbott Laboratories	37.7	38.2	8.9	4.3	10.9	11.5	12,265	2,274	31.3	18.5	19.6
American Home Prod	19.3	21.6	15.1	–1.6	11.2	36.0	13,844	2,697	28.9	19.5	29.1
Amgen	32.3	33.4	17.2	7.6	16.2	25.2	2,570	804	47.0	31.3	8.5
Bindley Western Inds	7.7	8.6	18.9	12.3	19.2	41.8	7,675	31	1.0	0.4	7.5
Bristol-Myers Squibb	37.7	40.5	8.9	10.0	8.9	13.2	17,840	3,530	30.9	19.8	14.3
Cardinal Health	14.6†	12.1	22.0	23.1	32.0	29.5	13,908	251	4.3	1.8	21.2
Genentech	7.8	8.6	13.8	15.3	38.4	96.1	1,040	186	24.0	17.9	6.3
Johnson & Johnson	26.6	26.5	11.9	1.9	15.9	11.7	22,920	3,606	25.6	15.7	7.3
Eli Lilly	14.1	28.5	6.4	17.6	NM	D-P	9,599	1,995	34.1	20.8	30.4
Merck	26.4	31.7	20.4	12.2	15.5	15.3	25,600	5,090	27.5	19.9	13.3
Pfizer	28.2	37.5	12.7	8.3	22.0	51.7	13,174	3,275	32.0	24.9	5.5
Schering-Plough	54.7	53.4	10.4	21.6	14.0	21.9	7,799	1,680	31.9	21.5	1.1
Stryker	18.7	21.6	16.4	6.9	21.0	20.0	1,036	143	22.7	13.8	0.5
Sybron International	12.1	9.8	20.3	20.8	22.3	–14.1	961	70	25.5	7.3	60.2
Warner-Lambert	28.4	24.8	7.9	25.6	14.1	42.7	9,663	1,149	21.9	11.9	26.2

D-P Deficit to profit. NM Not meaningful. †Three-year average. For further explanation, see page 128.

Sources: Forbes; Value Line and Market Guide via OneSource Information Services.

Warner-Lambert's Mel Goodes
"They called us the walking dead."

A handsome Gregory Peck look-alike from a small Ontario steel town, Goodes chose radical surgery, selling two lackluster divisions—Pro toothbrush and Warner Chilcott—and ordering across-the-board cost-cutting to save 10% a year. He had one promising new product, a cholesterol drug, Lipitor. Goodes threw out the rule-book by striking a deal with rival Pfizer to comarket the new drug. What? Admit it couldn't handle the deal all by itself? This was no time for false pride, Goodes decided. "Everyone gasped, but we couldn't market the thing on our own, and the 'not-invented-here' attitude in this business needed to go," he says. Such alliances are now commonplace in the drug industry.

Goodes got Lipitor on the shelf two years ahead of schedule. It was the first drug to produce sales of over $1 billion in its first year. Released a few months after Lipitor, Rezulin, a diabetes drug, has in the past month become a billion-dollar drug, too.

Goodes was in many ways the right person to do this tough job: In his own life he overcame considerable adversity. When he was 10, he paid into the family coffers money he earned from a paper route. During high school and college, he earned his keep digging graves and sorting blood-soaked laundry at the local hospital. Good grades got him into Queen's University in Toronto, then the University of Chicago business school.

Goodes' grandfather, a union organizer at one of the mills, taught him to treat workers with respect. Goodes carried that lesson with him when he rose to the top himself. In 1991 he vested every employee with stock options. This year more than 200 of them became millionaires.

Warner-Lambert's market cap is now $60 billion—an astonishing 750% increase over the last four years. Goodes says he plans to retire next year. Here is one executive who has richly earned his pension and stock options. ■

Health Care Services

It was another sick year for health care services, as hospitals, HMOs and nursing homes all came under pressure to adapt to significant changes in Medicare funding and reimbursement systems. Managed-care stocks climbed 15% last year, but hospital stocks were off an average 22% and long-term-care providers were off 56%. Mergers and acquisitions slowed in the HMO sector but remained brisk in long-term care, with more than $10 billion in deals.

Industry Buzz

- Earnings uncertainties will plague the long-term-care sector as it continues to adapt to lump-sum Medicare reimbursement. Expect more mergers in this sector. Beverly Enterprises and Genesis Health Ventures are possible takeover candidates.
- Spending on information technology will increase, fueled by two factors: the need to manage costs by capturing patient data and the danger of Y2K disruption in billing and collection.
- Universal Health Services should avoid many of the perils of its rival hospital chains. Revenue was up 30% last year. Known as an efficient operator; helped by its profitable psychiatric facilities.
- A big loser was NovaCare, which saw its stock plummet from $15 in April to under $3 in December. The long-term-facilities operator's first-quarter earnings fell nearly 50% because of uncertainty of Medicare reimbursement rates.

"All health care sectors are fighting payor pressure, tight labor and a more adversarial government environment. The best companies have operated through these issues. There's been a tropical storm, and the beachfront condos took a hit."

–John Ransom, Raymond James & Associates

Profile

The big money is in small towns

By Leigh Gallagher

When William Schoen was marketing beer for F&M Schaefer, the New York-based brewery he ran for eight years in the 1970s, he had to fight tooth and nail for every percentage point of market share. Schaefer had to compete with 20 brands in Manhattan alone. At Health Management Associates, the struggling Naples, Fla.-based hospitals operator he joined in 1983, he vowed he'd do things differently.

As chief executive since 1986, Schoen pulled HMA out of cities like Houston and Atlanta and focused instead on small cities like Gadsden, Ala. (pop. 50,000). He left it to Columbia/HCA and Tenet to fight over the big cities, and Quorum Health Group and Universal Health Services to fight over the suburbs.

Schoen's bold moves have paid off. HMA has met or beaten earnings estimates for 40 consecutive quarters. The company's debt/capital ratio, at 14%, is among the lowest in the health care services industry; its five-year return on capital of 21%, one of the highest. In 1998, a tumultuous year that knocked hospital stocks off an average of 22%, HMA's stock is up 16%.

HMA buys existing hospitals and spruces them up with new technology. Modernized hospitals attract quality physicians tired of the big city rat-race. Transition time from moneyloser to profitmaker: one to three years, according to Schoen. The Riverview Regional Medical Center in Gadsden was owned by an order of nuns and was hemorrhaging $1 million a year when HMA bought it in 1991 for some $25 million. Within one year it was profitable; within three years HMA had earned back its purchase price.

With 32 hospitals in 11 southeastern and southwestern states, HMA has 15,000 employees. Decentralized operation is one of Schoen's themes. The letters HMA appear nowhere outside of headquarters in Naples. The corporate staff is lean—60

COMPANY	PROFITABILITY		GROWTH				SALES	NET INCOME	OPER MARGIN	PROFIT MARGIN	DEBT/ CAPITAL
	RETURN ON CAPITAL		SALES		NET INCOME						
	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	latest 12 mos $mil	latest 12 mos $mil	latest 12 mos %	latest 12 mos %	latest %
HBO & Co	17.0	27.7	44.8	34.4	61.2	92.6	1,460	250	35.9	17.1	0.1
Health Management	20.8	22.5	27.1	27.2	32.6	26.3	1,139	137	24.6	12.0	13.8
HealthSouth	11.6	10.0	54.4	33.7	65.3	12.5	3,752	331	33.0	8.8	41.8
Humana	12.3	6.5	24.1	29.8	NM	–18.4	9,507	120	2.1	1.3	35.8
NovaCare	7.8	7.8	20.2	47.8	NM	28.3	1,793	53	9.1	3.0	45.5
Quorum Health Group	12.9	10.0	34.0	5.2	37.8	3.3	1,569	91	18.6	5.8	48.2
Universal Health	11.3	11.4	15.1	30.2	27.5	16.6	1,790	75	13.8	4.2	38.4
WellPoint Health	16.5	15.9	20.1	16.7	4.0	16.3	6,332	236	8.3	3.7	16.6

NM Not meaningful For further explanation, see page 128.

Sources: Forbes; Value Line and Market Guide via OneSource Information Services.

JEFFREY SALTER/SABA

Bill Schoen
Health care's Sam Walton.

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Schoen, 63, says he's looking to expand into new markets, like the Midwest. Retire? He did that once already, when he left Schaefer to move to Naples for the sun. Once he was there, HMA lured him onto the board and then into the executive suite. HMA shareholders, whose stock has jumped from 94 cents when Schoen took it public in 1991 to $19 today, hope he stays. ■

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HealthSouth	11.6	10.0	54.4	33.7	65.3	12.5	3,752	331	33.0	8.8	41.8
Humana	12.3	6.5	24.1	29.8	NM	–18.4	9,507	120	2.1	1.3	35.8
NovaCare	7.8	7.8	20.2	47.8	NM	28.3	1,793	53	9.1	3.0	45.5
Quorum Health Group	12.9	10.0	34.0	5.2	37.8	3.3	1,569	91	18.6	5.8	48.2
Universal Health	11.3	11.4	15.1	30.2	27.5	16.6	1,790	75	13.8	4.2	38.4
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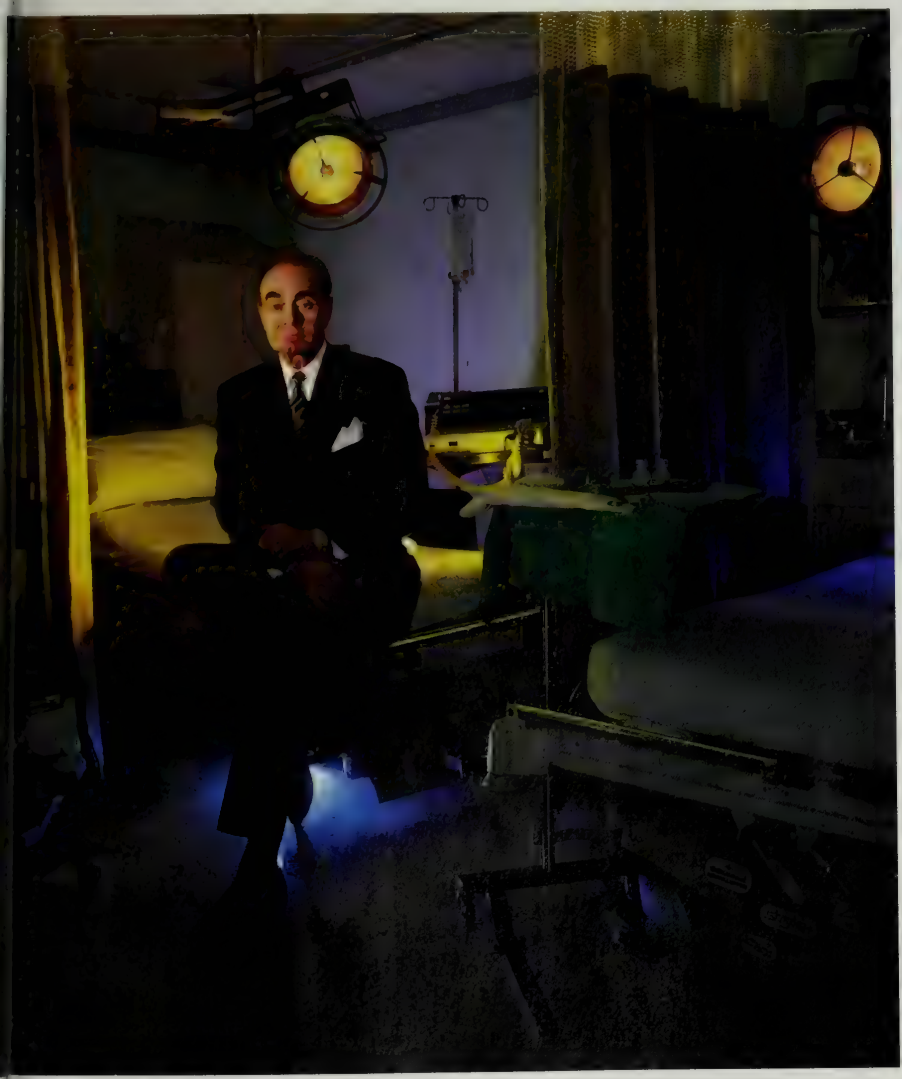

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Household & Personal Products

Consumers spent $700 billion last year on nondurable goods, up 6% from 1997. But there wasn't enough good news for Mattel and Revlon, whose margins are under pressure from discount retailers. Exposed to weak foreign markets, Avon, Gillette, Procter & Gamble and others are cutting costs and plowing savings into product development.

Profile

Tag team

By Carleen Hawn

EVERYONE THOUGHT Avon Chief Executive Charles Perrin and Chief Operating Officer Andrea Jung would have killed each other by now.

Jung was rumored to be in line for the top job at the $5.2 billion (estimated 1998 sales) door-to-door beauty products marketer. When Perrin, 52, replaced retiring James Preston in July and Jung got the number two post, insiders questioned how Perrin, a former battery salesman, could possibly get along with Jung, 40, a management dynamo from within Avon. How could they revamp a 112-year-old company with an antiquated sales scheme, much less fix Avon's stale image appealing mostly to middle-age, middle-class women?

Surprise: Perrin and Jung not only get along but also share a vision as to how to reposition Avon as a company marketing to hip, young professionals—like Jung herself, a Princeton-educated mother of two.

Perrin and Jung hit the ground running, each visiting at least 20 countries where Avon goods are sold. Perrin, who as chief executive of Duracell International led a global transforma-

KRISTINE LARSEN

Charles Perrin and Andrea Jung **Face-lifts.**

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American Dental Association

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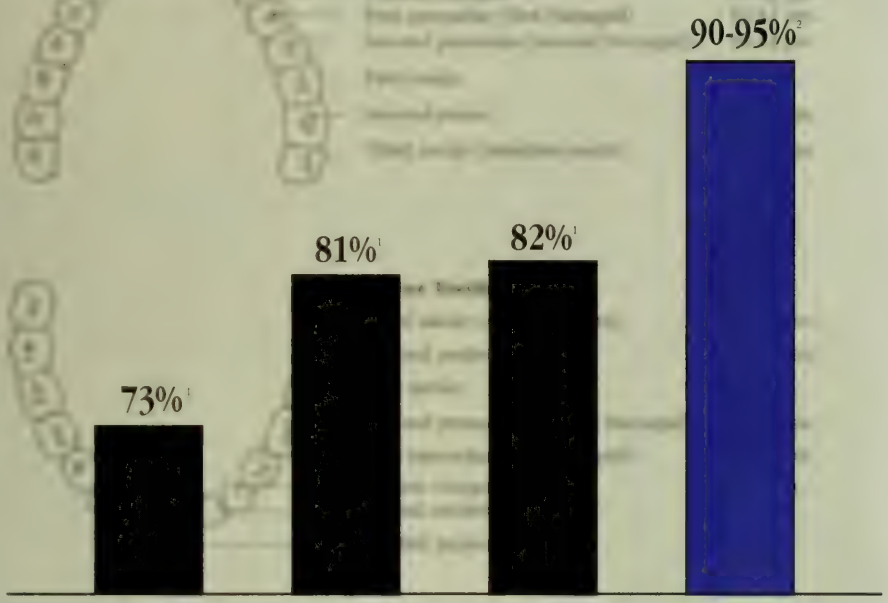

[1]Source: National Association of Dental Plans
[2]Source: American Dental Association

Percentage of money that goes to actual dental care

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COMPANY	PROFITABILITY		GROWTH				SALES	NET INCOME	OPER MARGIN	PROFIT MARGIN	DEB CAPI
	RETURN ON CAPITAL		SALES		NET INCOME						
	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	latest 12 mos $mil	latest 12 mos $mil	latest 12 mos %	latest 12 mos %	lates %
Alberto-Culver	13.8	13.3	11.0	3.3	17.5	–2.8	1,835	83	9.9	4.5	23.
Avon Products	72.8	56.5	6.0	2.5	12.8	–24.2	5,181	256	12.2	4.9	42.
Central Garden & Pet	11.1	9.7	21.1	49.8	50.0	103.0	1,181	33	6.5	2.8	18.
Clorox	18.1	19.3	11.0	7.2	10.5	19.6	2,778	309	24.8	11.1	26.
Colgate-Palmolive	14.0	18.6	5.8	–0.5	NM	14.7	8,993	821	19.0	9.1	42.
Estee Lauder Cos	24.7*	22.2	8.5	8.9	26.4	19.3	3,714	247	15.2	6.6	27.
Gillette	21.5	16.6	9.1	1.4	19.8	4.2	10,041	1,117	28.2	11.1	27.
Harman International	10.7	8.9	18.3	2.4	34.0	–3.5	1,500	54	10.9	3.6	39.
Interface	7.5	9.6	14.6	14.6	24.8	44.5	1,273	49	12.2	3.9	46.
Jones Apparel Group	28.5	32.2	25.1	18.8	22.5	28.6	1,527	147	15.7	9.6	8.
Liz Claiborne	14.4	19.1	1.3	6.7	NM	4.5	2,517	187	13.3	7.4	0.
Mattel	19.9	20.2	13.1	10.0	17.5	124.8	4,852	468	20.4	9.6	33.
Mohawk Industries	9.9	16.0	18.4	13.4	NM	58.7	2,099	97	12.1	4.6	34.
Newell Co	15.3	14.8	18.2	15.8	13.2	52.2	3,564	427	21.5	12.0	27.
Nine West Group	16.7	6.6	36.3	8.4	11.9	–52.7	1,929	42	8.8	2.2	54.
Procter & Gamble	21.3	23.1	4.5	3.0	52.0	9.6	37,309	3,860	20.9	10.4	25.
Scotts	7.7	8.6	17.2	23.6	14.1	–6.3	1,113	37	13.5	3.3	47.
Timberland	10.2	19.3	20.6	7.7	20.5	35.7	839	56	13.1	6.7	27.

NM: Not meaningful. *Four-year average. For further explanation, see page 128.

Sources: Forbes; Value Line and Market Guide via OneSource Information Servi

Industry Buzz

"Personal care stocks are trading at a huge premium. They've been great to own, but they're sitting on a precipice and there is not a lot of room for error. We expect these multiples to be rationalized at some point."

–Amy de Rham, NationsBanc Montgomery Securities

• Gillette's an example. Despite a $1 billion investment in its hot new Mach 3 razor, total sales dropped 1%. Operating earnings were flat in 1998. Shares are 33% off this year's high of $62.50.

• Also hard-hit: shoes. Sluggish sales and an inventory glut have spurred retailers to offer discounts on all kinds of shoes. Nine West closed 20 stores in 1998 and will further downsize this year.

• Regardless of "nervousness in the backs of the minds of consumers," Conference Board economist Kenneth Goldstein thinks spending in this sector will increase 4%, to $730 billion, in 1999.

tion of the battery maker's brand, hopes to do the same at Avon. Jung oversees cost-cutting and new-product development.

But all is done in tandem. "We don't have separate staff meetings," Jung says. "At times I do his part, and he does mine. Charlie can probably finish my sentences, and I, a lot of his."

Jung aims to trim $400 million in annual costs from the business by 2000. She says she has already made a $20 million down payment on this goal by shrinking the number of suppliers for Avon's manufacturing plants.

Prior to 1998, Avon's 2.7 million representatives in 135 countries were selling some 500 brands of cosmetics, fragrances and toiletries, many unique to specific countries. Marketing was divided among 18 ad agencies. And now? One agency handles the company's slimmed-down stable of 11 Global Brands, which represent half the company's cosmetics sales.

Jung, whose retailing skills were honed during more than ten years with Bloomingdale's, Neiman Marcus and I. Magnin, replaced 20 makeup lines wi a new, more expensive bra called "Avon Color" and pac aged it in metallic dark blu casings. Avon Color lipstic now sells for, say, $5 instead $4 for the old brands.

In November Perrin and Jun made their biggest departu from Avon tradition: They bega a test rollout of freestandin retail mall kiosks in 40 U.S cities, like Atlanta, Pittsburg and Milwaukee. So far, so gooc Two-thirds of customers wh shopped at the Atlanta kios were first-time buyers. Avon no has a Web site that sells th Global Brands, and has opened retail store and spa in Manhattan

Perrin and Jung already hav something to crow about: a 16 earnings gain for 1998, exclud ing special charges, on a mere 3 sales gain.

In 1999 Avon will spend th lion's share of its $35 millio R&D budget on new product to attract the 25 million Amer ican women who have neve bought an Avon product Expect that number to be a lo lower a year from now. ■

VIEWPOINT

Commerzbank's focus on German and European economic issues

The new Berlin's unique role in Europe

Compared with other European capitals, Berlin was a late starter insofar as it did not join the ranks of the world's major cities until well into the twentieth century. Moreover, its status as Germany's capital was lost in 1945 when the city was split into a western and an eastern part, each of which led a separate existence for over forty years. With the scars of this unnatural division now largely healed, re-united Berlin is returning to the international stage at a crucial moment in the European integration process. As the year 2000 approaches, and the German government prepares to move to the capital, the new Berlin's dynamism and its location at the interface between East and West are helping to ensure that it will be one of Europe's preeminent cities in the early twenty-first century.

ABOVE ALL in economic terms, Berlin is beginning at long last to realize its potential. In fact, since 1989 the city has experienced a wave of business start-ups. Most of these are small and medium-sized companies, primarily in the service sector. In 1996, the net figure for new businesses was roughly 7,000, and while the total for last year was 4,500, a slowdown was to be expected after the boom years following unification. All told, more than 104,000 new enterprises were created between 1990 and 1997.

AT THE SAME TIME, Berlin has been successful in attracting major companies, both German and foreign, which have been drawn to the city not least because of its highly qualified workforce. They have in turn created new jobs.

BUSINESS INVESTMENT in the city is healthy, not least in high-tech sectors, where some 1,300 Berlin firms are investing to develop the technologies of tomorrow. But other industries with sound prospects for the future are also attracting investment. Prominent among them is transportation, which is especially important in Berlin, given its strategic position astride Continental Europe's north-south and east-west axes. The 250 firms in this sector employ some 40,000 people and the city boasts over 40 specialized R&D units. Another key industry with a bright outlook is medical research, which has already spawned a vibrant medical technology sector with annual sales of around DM1.9 billion.

SLOWLY BUT SURELY, companies are also recognizing another of Berlin's advantages: formerly isolated on the fringes of Western Europe, the city now finds itself at the heart of the new Europe. After decades of confrontation across the cold-war divide, cooperation in the region is now increasing and Berlin's geographical position, once a liability, has become a major asset.

INDEED, its proximity to the growth markets of Central and Eastern Europe is giving the city a strong competitive advantage. And the experience gained by Berliners on both sides of the former Iron Curtain is proving to be highly valuable at a time when eastward enlargement ranks high on the agenda of the European Union. For firms based in the countries of Central and Eastern Europe which are negotiating membership conditions with the EU, Berlin is a natural place to do business with the West, as is underscored by the threefold increase in the number of Eastern European exhibitors at its trade fairs since 1991.

BERLIN'S FRESH START, documented by its huge construction boom, is propelling it into the next millennium. And the realization of major transport and communications projects is creating a modern metropolis with a distinct infrastructural edge over other cities. At the same time, Berlin's history and its position at the crossroads of the new Europe make it acutely aware of both the challenges and opportunities which EU enlargement will bring.

Berlin's key economic data

1997		as percentage of Germany as a whole
Gainfully employed	1.440m	4.2
Unemployed	0.26m	5.9
Gross value added*		
Agriculture and forestry	DM0.3bn	0.7
Producing sector	DM41.1bn	3.9
Trade and transport	DM16.2bn	3.6
Services	DM44.5bn	4.1
Government, households	DM22.9bn	5.7
Gross domestic product*	**DM128.6bn**	**4.1**

*At constant prices

DAS NEUE Berlin

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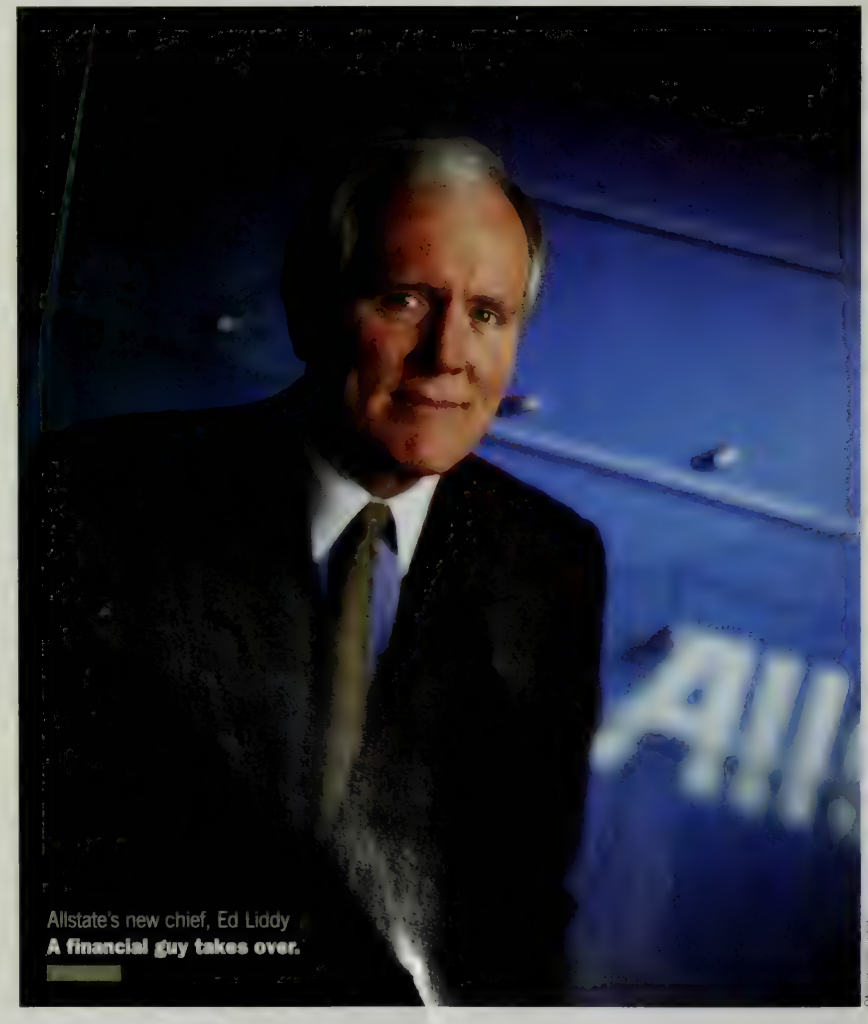
COMMERZBANK

Insurance

Merger makers were plenty busy, with 406 deals worth $142 billion announced in the first three quarters. Berkshire Hathaway hooked up with General Re. AIG is merging with SunAmerica. Variable annuities remain hot, with sales of close to $99 billion last year, up from $88 billion in 1997. Low inflation in 1999 should help both property/casualty and life companies, but then there is the perennial problem of excess capacity giving rise to cutthroat pricing.



Allstate's new chief, Ed Liddy
A financial guy takes over.

Profile

New blood

By Carrie Coolidge

FOR THE FIRST TIME in its 68 year history, Allstate Corp. turned over the chief executive's job this month to an executive from outside the industry. Replacing the retiring Jerry Choate at the Northbrook, Ill.-based $25 billion (sales) firm is Edward Liddy, 52, who joined Allstate four years ago as president and chief operating officer.

Liddy's résumé is varied: It includes stints as chief financial officer at Sears, Roebuck & Co. at the security firm ADT and at pharmaceutical giant G.D. Searle. At Sears, Liddy helped build the company's financial services network and then oversaw its breakup.

This heavy financial spin is what Allstate directors think the company needs right now. Though Allstate boasts a five-year average return on capital of 17%, one of the healthiest on our list, the competition is heating up fast on all fronts.

Bigger competitors like capital-markets-savvy, $32 billion

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Allstate	17.2	19.3	4.5	4.2	37.6*	20.4	25,738	3,405	19.0	13.2	7.1
American Intl Group	12.0	11.9	11.2	6.9	15.3	13.2	32,142	3,644	29.9	11.3	36.2
Aon	12.2	13.5	7.6	19.1	6.1	121.8	6,312	515	16.3	8.2	12.6
Berkshire Hathaway	8.6	9.8	31.2	49.9	39.5	150.2	13,814	3,236	38.2	23.4	6.3
Cigna	10.4	14.6	1.4	10.4	30.8	12.3	21,450	1,294	10.9	6.0	15.0
Conseco	16.7	6.7	25.3	54.2	18.7	–14.4	7,371	418	34.8	5.7	36.3
First American Finl	12.6	35.8	8.7	48.5	NM	213.7	2,615	169	15.2	6.5	23.7
Fremont General	10.7	10.4	10.1	22.9	25.5	26.7	1,061	129	48.3	12.1	52.9
General Re	13.0	12.5	24.3	–5.3	10.1	20.1	8,034	1,165	20.7	14.5	14.1
Jefferson-Pilot	14.7	13.0	17.4	8.9	13.2	12.2	2,670	430	24.3	16.1	8.2
Marsh & McLennan	21.6	13.7	14.3	24.7	7.1	2.2	6,871	560	17.9	8.2	26.4
Mercury General	19.7	22.3	16.7	15.5	11.3	41.4	1,219	192	22.1	15.8	7.7
Orion Capital	15.2	12.5	21.4	8.6	19.0	15.4	1,706	119	11.9	7.0	18.6
Progressive	18.3	18.1	21.5	24.8	17.5	25.1	5,273	483	15.5	9.2	24.4
Protective Life	16.0	12.6	12.1	23.6	19.7	16.7	1,333	125	16.8	9.4	9.0
Reinsurance Group Am	15.3	13.7	21.6	38.3	16.5	53.9	1,369	78	8.4	5.7	12.0
Reliance Group	11.8	24.7	3.5	6.2	23.7*	157.0	3,514	414	15.8	11.8	37.0
ReliaStar Financial	13.9	11.1	13.5	17.8	31.1	21.4	2,810	260	16.6	9.3	10.8
SunAmerica	16.4	14.6	27.1	25.7	32.5	36.2	2,619	516	34.8	19.7	25.9
Transatlantic Holding	15.9	18.0	20.1	6.7	21.3	40.2	1,588	244	13.3	15.4	0.0

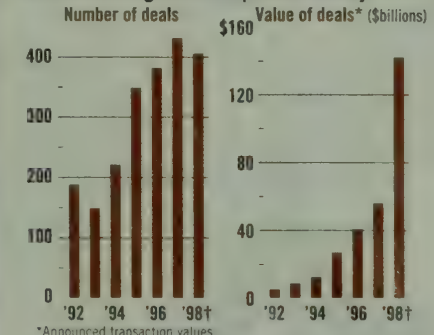
NM: Not meaningful. *Four-year average. For further explanation, see page 128.

Sources: Forbes; Value Line and Market Guide via OneSource Information Servic

Industry Buzz

- Look for more mutual insurance companies to become stockholder, publicly owned companies in the next year or so. Likely candidates include Met Life, John Hancock and Prudential.
- There will also be increased acquisition of U.S. insurers by foreign companies. American Bankers, CNA and the Equitable Cos. are particularly vulnerable to takeover.

Insurance mergers and acquisition activity



*Announced transaction values
†Through Sept. 30, third-quarter results are preliminary.
Sources: Conning & Co.; Insurance Information Institute.

(sales) AIG are expanding aggressively into consumer finance and even trust services. Allstate has barely begun. The Travelers-Citibank merger gives Sanford Weill a huge advantage in offering global financial services to his Travelers insurance customers. At the same time, banks like NationsBank and Chase are offering more insurance products like annuities. In its core business, Allstate is still chasing number one State Farm, which has a 20.5% market share compared with Allstate's 12.5%.

Liddy clearly knows Allstate must broaden its business, and he's approaching this with a real sense of urgency. In November Liddy opened the Allstate Federal Savings Bank, based at its corporate headquarters. "We will provide trust services, maybe even checking accounts, savings accounts or credit cards," says Liddy.

In the core insurance business, Liddy wants to expand Allstate's channels of distribution. As of now, both Allstate and Sta Farm sell their property an casualty products through a ne work of captive agents. Lidd now wants to push Allstate int the independent agent channe a $30 billion market. It's a risk move. Liddy can't afford t alienate his own loyal network c 15,000 agents. So to begin with the independents will sell th insurance under a differen brand name: Deerbrook.

Liddy says he's considerin selling Allstate products through an 800 number, as do Progres sive and Geico.

Overseas, Allstate will this yea begin selling property/casualty insurance in Japan and Italy countries where AIG has beer selling for years. "In five years we want to be a multibrand, multi national company in more chan nels of distribution," he says.

Allstate is at a crucial juncture It's a highly successful outfit but to remain so it must embark on some delicate and risky new directions. ■

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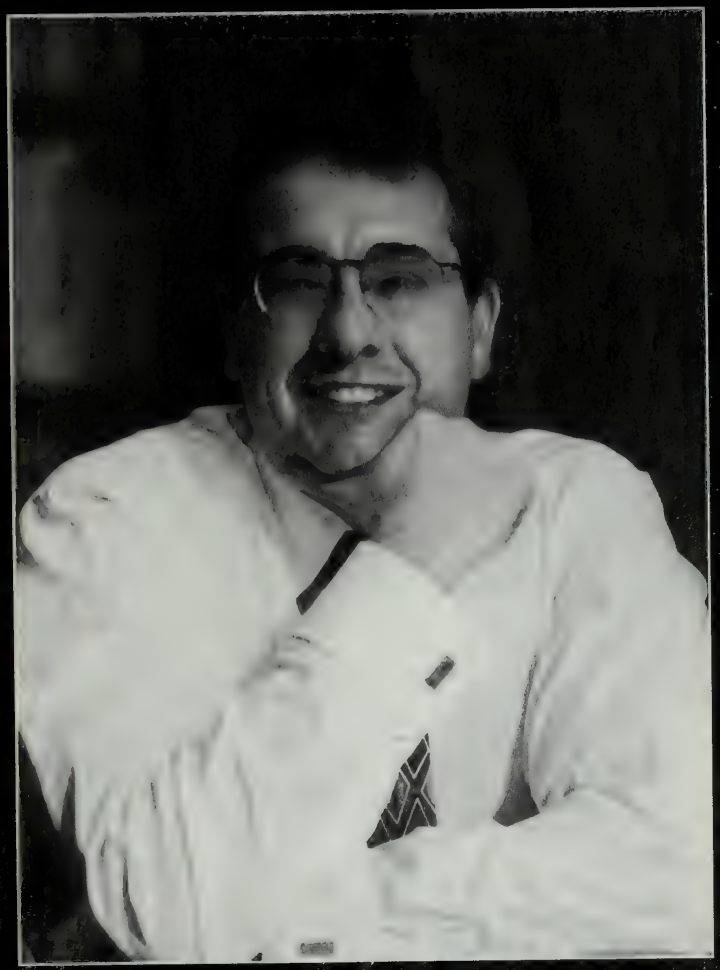

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Metals

Margin meltdown: For the third year in a row, steel demand remained at record highs, as shipments totaled 100 million tons. But spot prices dropped 19%, to $250 per ton, a 25-year low thanks to a flood of 42 million tons of cheap imported steel, a 35% increase from 1997. The protracted strike at GM, the country's largest steel consumer, devastated third-quarter results. Aluminum sank as low as 56 cents a pound, compared with 68 cents a year ago.

Industry Buzz

- Bulging inventories and idle machinery will squeeze margins in the steel industry during the first half of 1999. But flat-rolled steel imports are slowing, which will help prices in the second half of 1999.

- U.S. steel producers take some hope that they may win several key trade cases against Japanese and Russian producers this year. The Japanese unloaded nearly 4 million tons in the U.S. last year when they learned about the legal actions.

- Winners for 1999? Hard to come by, but Reliance Steel & Aluminum has good cost controls and turns its inventory up to six times a year, versus an industry average of four. Alcoa also gets good marks from Wall Street for driving inventory out of its system and lowering its costs.

"Thirty percent of the industry's capacity is on the sidelines and utilization could drop even lower."

–Scott Morrison, steel industry analyst at Donaldson, Lufkin & Jenrette

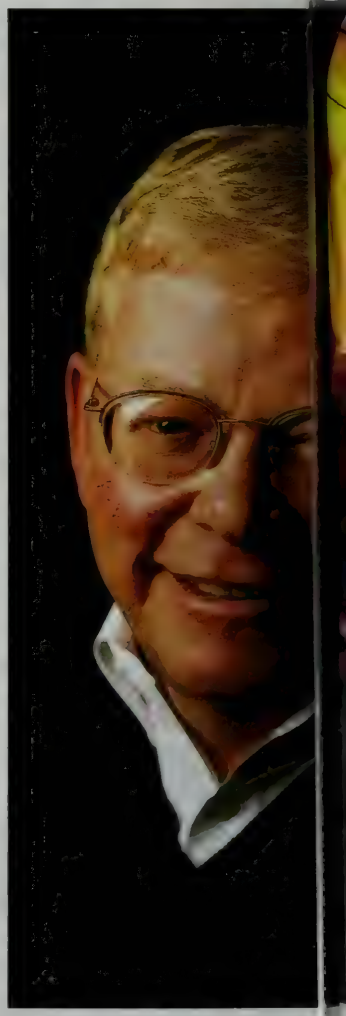
Profile

The Cortez of steel doesn't look back

By Brett Nelson

CHAIN-SMOKING HIS WAY through a pack of Winstons, Richard Wardrop Jr., the chief executive of AK Steel Holding, explains why his firm is the most profitable of the six largest U.S. steel producers on a per-ton basis: "We're crazy bastards about up-time," he says. By that he means he keeps his blast furnace and rolling mills running as much as possible.

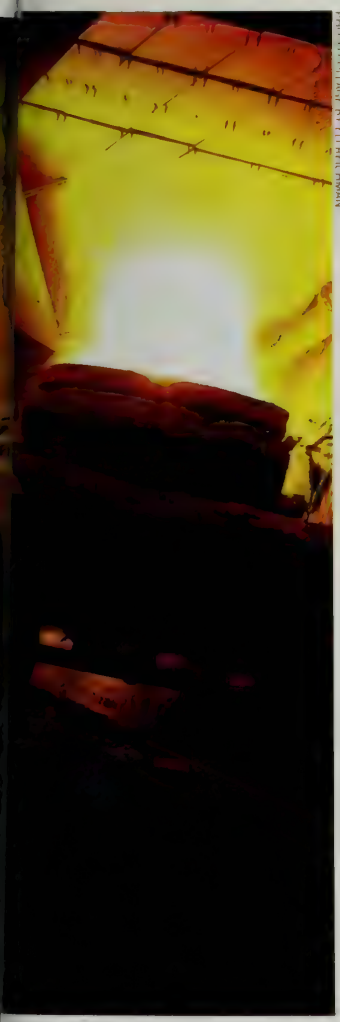
Keen grasp of the obvious? Not really. On average the industry shuts down its furnaces for four months every six years to reline them. Wardrop takes a shortcut. He shuts his furnace down for two weeks every two years to recoat the walls with a concrete spray. Over a six-year period, Wardrop's two furnaces run 10 weeks longer than the competition's. That adds up when you consider that each lost day represents $1 million in forgone operating income.



COMPANY	PROFITABILITY		GROWTH				SALES	NET INCOME	OPER MARGIN	PROFIT MARGIN	DEBT/ CAPITAL
	RETURN ON CAPITAL		SALES		NET INCOME						
	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	latest 12 mos $mil	latest 12 mos $mil	latest 12 mos %	latest 12 mos %	latest %
AK Steel Holding	17.2*	7.6	12.0	–2.1	–21.2†	–21.0	2,378	112	12.4	4.7	54.7
Allegheny Teledyne	19.5	16.9	4.1	0.7	24.6	–10.3	3,771	251	12.0	6.7	21.6
Alcoa	12.1	15.6	9.0	8.7	NM	15.6	14,440	845	16.5	5.9	27.8
Carpenter Technology	11.7	9.6	15.0	18.5	23.4	14.7	1,178	79	18.9	6.7	30.7
AM Castle & Co	17.0	11.8	12.4	12.6	50.5	–5.0	809	23	6.7	2.9	53.4
Commercial Metals	9.9	8.7	9.3	5.3	14.5	10.6	2,368	43	5.6	1.8	30.1
Inland Steel Inds	9.4	36.0	7.1	–31.4	NM	455.6	3,388	569	6.3	16.8	24.8
Intermet	16.4	14.6	12.6	13.6	NM	–5.8	837	43	14.3	5.2	36.7
Nucor	18.8	16.2	19.9	6.0	28.8	–7.1	4,315	279	15.5	6.5	8.4
Reliance Steel	14.1	9.6	22.3	43.7	38.9	15.2	1,261	36	8.1	2.8	47.0
Texas Industries	13.8	13.6	13.5	16.9	37.8	30.3	1,198	105	19.5	8.7	33.5
USX-US Steel	14.4	19.4	6.3	–2.6	26.3†	3.0	6,621	440	13.5	6.7	24.4

NM Not meaningful. *Four-year average. †Three-year average. For further explanation, see page 128.

Sources: Forbes; Value Line and Market Guide via OneSource Information Services.



PHOTOGRAPH BY PHILIP HUMAN

AK Steel Chief Executive Richard Wardrop
Pouring his way to red-hot profits.

Wardrop also leans on his suppliers to redesign any failed components rather than simply replace them. Better parts mean less downtime on a cold-rolling mill or a coating line. AK Steel's operating margin of 12.4% (net before depreciation, interest and taxes, as a percent of sales) was nearly two points higher than Value Line's estimated industry average. Economies of scale don't explain AK's success; at $2.4 billion in 1998 sales, the company is smaller than its competitors.

Says Wardrop: "This business is all about money. Once you instill that in a work force, the job gets easier."

The job wasn't easy when Wardrop took it. In 1992 Wardrop, now 53, took the reins at what was then called Armco, after its 1989 merger with Japan's Kawasaki Steel. Armco was a mess, losing as much as $540 million a year because of poor quality and sometimes days-late deliveries. Things were so bad that about a month after Wardrop arrived at the Middletown, Ohio headquarters, Ford and General Motors both threatened to drop their Armco accounts—which at the time made up more than 25% of the company's sales.

Wardrop responded with a risky move. He literally broke the molds for his reliable ingot casting line and replaced them with more efficient, if less dependable, continuous casters. That meant no production if the casters went down. The bet paid off—Ford and GM are still customers. Says Wardrop soberly: "We've learned to become great casters."

That make-it-happen-or-else attitude is vintage Wardrop. Son of a lifelong hot-mill worker from McKeesport, Pa., he studied metallurgy at Penn State before working his way up to plant general manager at U.S. Steel. It was there that he met legendary steel veteran Thomas Graham, with whom he left to save beleaguered Armco. Graham dubbed Wardrop the Cortez of steel because, as the story goes, Cortez burned his ships upon reaching Mexico to convince his men that there was no going back.

Wardrop and Graham spent a hefty $1.1 billion on a new mill in Rockport, Ind. Two years ago FORBES thought the Rockport works a dubious project *(Feb. 10, 1997)*. But Wardrop managed to bring the 1.8-million-ton-a-year cold-mill-and-galvanizing line aboard months ahead of schedule and on budget.

Planned startup costs at Rockport and one of those routine blast-furnace shutdowns at AK's Middletown works put a 75% dent in third-quarter profits. But earnings should revive modestly this year, despite the depression in commodity prices. ■

Retailing

Retail registers rang loudly for the first half of 1998; the second half was somewhat softer but still strong enough to make retail one of the year's best-performing sectors. First Call Corp., which tracks earnings estimates, expects the sector to repo a 20% improvement in 1998 earnings, compared with a 16% rise the year before. Sales rose 4.6%, to $1.8 trillion, through November. Last year was also the first yea the Internet was a real factor. Internet retail revenue grew to $7.8 billion, more tha double the year before. Stores like Macy's and Nordstrom started selling on-line.

Profile

Time to kick some butt

By Luisa Kroll

David Fuente **"People make the difference."**

AFTER ANTITRUST PROBLEMS killed the merger between Office Depot and Boston-based Staples in July 1997, Office Depot Chief Executive David Fuente threw a big party at his Delray Beach, Fla. headquarters. Fifteen hundred employees tossed Staples' "vision statements" into trash cans. Fuente boogied with an employee dressed in drag. "We're going to kick our little Boston buddies' butts," he told the roaring crowd.

A bone cancer survivor who lost his right leg 15 years ago, Fuente, 53, knows how to handle setbacks. While Wall Street was calling Office Depot a weakened company, Fuente was making sure his employees knew they were the future. "Let's cut the baloney," he says. "Our competitors sell the same products. We like to think our prices are lower, but they aren't. It's the people who make the difference."

How different? Staples likes to use consultants, and studies everything to death. Fuente is impulsive. When a computer systems executive, Paul Gaffney, 32, came in one afternoon with a plan to sell to consumers on-line, Fuente approved it on the

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COMPANY	PROFITABILITY		GROWTH				SALES	NET INCOME	OPER MARGIN	PROFIT MARGIN	DEB CAPI
	RETURN ON CAPITAL		SALES		NET INCOME						
	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	latest 12 mos $mil	latest 12 mos $mil	latest 12 mos %	latest 12 mos %	late %
Ames Dept Stores	15.5	21.0	–1.2	10.5	NM	63.8	2,500	42	6.4	1.7	18.
AutoZone	22.6	18.6	21.6	20.5	20.6	16.9	3,243	228	14.5	7.0	29.
Bed Bath & Beyond	34.3	27.9	37.9	27.6	35.6	33.7	1,201	82	12.9	6.9	0.(
Best Buy	10.1	16.9	38.5	17.1	30.8	500.0+	9,084	150	3.7	1.7	3.9
BJ's Wholesale Club	15.7	15.6	12.7	13.0	29.6	24.1	3,497	77	4.8	2.2	12.8
CDW Computer Centers	35.2	30.7	48.7	35.2	50.4*	28.7	1,607	61	6.3	3.8	0.(
Costco Cos	10.4	14.0	9.5	11.0	48.1†	47.3	24,270	460	4.1	1.9	22.9
Dollar General	27.9	27.8	23.3	26.5	32.2	28.9	3,089	169	10.5	5.5	0.(
Family Dollar Stores	17.0	19.9	12.4	18.4	8.8	38.3	2,362	103	8.4	4.4	0.(
Gap	28.8	36.0	17.1	36.3	20.2	48.4	8,190	726	17.9	8.9	28.3
Global DirectMail	27.4	15.7	35.5	33.9	30.0	13.9	1,401	43	5.4	3.1	1.9
Goody's Family	16.5	21.7	16.6	16.6	14.3	40.9	1,062	37	6.6	3.5	0.3
Home Depot	16.3	17.9	27.7	22.7	26.2	36.2	28,692	1,503	9.7	5.2	13.6
Kohl's	18.6	14.1	22.7	22.7	32.5	41.6	3,470	171	10.7	4.9	25.5
Lowe's Cos	13.2	13.3	21.8	19.9	31.6	31.7	11,727	449	8.9	3.8	29.2
Office Depot	11.3	10.1	31.4	28.8	31.4	42.3	8,425	211	6.9	2.5	18.6
Pier 1 Imports	12.4	15.9	11.4	12.2	39.3	20.8	1,120	76	13.7	6.8	23.5
Ross Stores	23.3	31.3	13.9	10.3	30.8	18.5	2,125	129	12.0	6.1	6.9
Staples	12.3	13.1	45.2	37.6	55.2	57.1	6,596	178	7.1	2.7	30.9
Starbucks	10.8	9.6	51.2	35.3	58.3	19.1	1,309	68	14.6	5.2	0.1
Tiffany	14.2	15.6	16.4	11.9	36.7†	18.6	1,094	79	15.5	7.2	16.9
Wal-Mart Stores	14.7	15.3	16.1	16.6	11.1	24.7	132,235	4,158	6.0	3.1	31.0
Walgreen	19.9	21.5	13.1	14.5	16.6	23.2	15,307	537	6.7	3.5	0.5
Williams-Sonoma	14.5	16.7	22.9	16.0	56.8	39.0	1,033	45	10.6	4.4	17.0

NM: Not meaningful. *Four-year average. †Three-year average. For further explanation, see page 128. *Sources: Forbes; Value Line and Market Guide via OneSource Information Servic*

Industry Buzz

• Two key determinants of consumer demand—employment and earnings—are showing declining growth. That may well translate into more sluggish sales this year, particularly if interest rates rise.

• Winners will be dominant players like Home Depot, Staples, Wal-Mart and the Gap, or ones with unique stories to tell, like Restoration Hardware. The ones in the middle will struggle.

"Alan Greenspan seems to be much more important to consumers than Bill Clinton. The important thing is to keep Monica Lewinsky away from Alan Greenspan."

–Irwin Cohen, managing director at Deloitte & Touche

spot. Within five months officedepot.com was in business. It beat staples.com by ten months, is bringing in revenues in excess of several stores and could turn a profit this year.

Another Fuente hallmark is his accessibility. He says anyone can stop by, without an appointment. Recently a secretary came to him about her elderly mother, who needed to move into a nursing home. He personally made a few calls.

But he also keeps scorecards. Clerks who complete training courses on computers and telephone gear have to pass a test to get incremental pay. All store employees have a portion of their pay tied to sales.

Results: Office Depot's net profit margin, estimated at 3.4% for 1998, will be a half-point ahead of where it was last year and two-tenths of a point higher than Staples', excludin charges, according to Lehma Brothers. In December Fuent opened 57 stores, double th previous monthly high, bring ing the total to 726.

Fuente has moved fror takeover bait to predator. Las summer he acquired $1.5 billio (sales) direct marketer Vikin Office Products for $3 billion i stock. The merger boosts Offic Depot's international presenc and strengthens its position a the top of its industry.

But with the "ungodly diffi cult" and bitter Staples experi ence still fresh in his mind, he' determined to make the Viking deal work.

No treating acquired employ ees like chattel. At a manage ment meeting Fuente declared "If anyone treats the people from Viking the way Staples treated us, they will be fired."

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Telecommunications

The great hookup: Last year saw the conception of the four U.S. supercarriers: Bell Atlantic-GTE, SBC-Ameritech, AT&T-TCI and MCI-Worldcom. One business model that failed: reselling local phone service without owning your own switches and networks. Witness USTel and USN—the latter's shares dropped from $25 to 25 cents. In Brazil, privatization bids for Telebras exceeded the government's minimum price, $11.5 billion, by 64%.

Industry Buzz

- Wireless penetration in the U.S. should reach 30% in 1999, up from 25% in 1998, according to Yankee Group. That's still well short of Scandinavian countries, where half the population has cell phones.
- Expect Bell Atlantic to be the first regional Bell to offer long distance service, in New York, sometime in the middle of the year.
- The FCC will rule that phone calls over the Internet are interstate traffic, thus positioning itself to regulate the coming of IP-based telephony.
- Not only will AT&T pitch voice and data to TCI's 13 million subscribers, but rumors on Wall Street have Ma Bell also pitching Time Warner on selling AT&T-branded service.
- Weak players this year will include Lucent: Opportunities abound for acquisitions and new communications products. But what about all that obsolescing circuit-switched technology? And how much better can the stock do over the next few years at 56 times 1998 earnings?

"A colleague of mine told me that earlier this year they outlawed digital phones in Finnish classrooms because kids were cheating by sending text messages to one another."

–Thomas Lee, Salomon Smith Barney

Profile

Bright vision

By Bruce Upbin

ROBERT LAIKIN, the 35-year-old chief executive of Brightpoint, Inc., gets out of bed at odd hours to return e-mails from managers in Hong Kong, Sydney and Gothenburg, Sweden. Here's one to a reporter: "When I woke up last night at 1 a.m., I realized that we did not talk about the day when your wireless device will be your garage door opener, your key, your TV remote, your home phone, car phone, office phone, light dimmer, tape

COMPANY	PROFITABILITY		GROWTH				SALES	NET INCOME	OPER MARGIN	PROFIT MARGIN	DEBT/ CAPITAL
	RETURN ON CAPITAL		SALES		NET INCOME						
	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	latest 12 mos $mil	latest 12 mos $mil	latest 12 mos %	latest 12 mos %	latest %
ADC Telecom	18.5	19.5	32.5	18.5	37.7	34.8	1,380	147	20.8	10.6	0.3
AirTouch Commun	6.2	11.3	31.5	38.4	73.9*	84.5	4,668	671	36.9	14.4	18.2
Alltel	10.3*	9.9	14.8	15.1	26.7	–9.8	5,003	505	37.1	10.1	47.2
Ameritech	17.0	25.9	7.7	7.1	12.9	53.1	16,859	3,455	40.4	20.5	35.9
Andrew	20.0	19.2	15.3	–1.9	29.1	17.6	853	104	22.2	12.2	7.5
Ascend Commun	24.4	23.2	NM	11.4	NM	D-P	1,295	225	28.5	17.4	0.0
Bell Atlantic	10.5†	11.8	3.1	4.3	17.1*	27.4	31,185	2,870	38.9	9.2	51.3
BellSouth	12.2	14.3	6.2	12.7	19.1	3.1	22,555	3,262	44.6	14.5	29.9
Brightpoint	27.5*	12.7	86.8	70.7	99.6	76.6	1,492	37	5.0	2.5	53.1
CellStar	34.2	17.8	52.1	28.5	NM	13.3	1,761	51	4.8	2.9	43.3
Century Telephone	12.7	9.1	20.3	74.6	30.3	46.3	1,436	275	50.9	19.1	57.0
Cincinnati Bell	13.2	18.3	10.1	22.4	NM	–32.9	2,115	144	26.1	6.8	23.3
Qualcomm	9.9	11.6	86.5	59.7	58.1	18.1	3,348	109	11.5	3.2	0.2
Scientific-Atlanta	11.2	13.5	10.2	–4.7	24.3	19.6	1,144	79	7.1	6.9	0.1
Tellabs	35.2	37.4	36.7	33.1	68.6	43.6	1,493	353	35.2	23.6	0.2

D-P Deficit to profit. NM Not meaningful. *Four-year average. †Three-year average. For further explanation, see page 128. *Sources: Forbes; Value Line and Market Guide via OneSource Information Services.*

Robert Laikin
A stockroom for the wireless age.

recorder, video machine and Internet browser—all in one handheld device. It will provide all the converging services from one of 12 worldwide network operators. That is my vision of the future."

Another part of this vision is that the magical wireless gadget comes to you with help from Laikin's firm. Brightpoint is the world's second-largest and fastest-growing distributor of wireless products. The Indianapolis firm—which Laikin cofounded in 1989—should earn $40 million for 1998 on $1.6 billion in revenue. It will likely catch the industry volume leader, Cellstar Corp., by 2000.

Wholesaling—selling in bulk to retailers—provides 80% of Brightpoint's revenue. But the profit margin is thin, and the inventory risk abundant. Three years ago Laikin, copycatting a common practice in the desktop computer industry, offered manufacturers a more elaborate middleman activity, which includes assembling, programming and financing cell phones for customers. This new business offers gross margins of at least 20%, against 6% for plain old wholesaling. The "value-added" line could hit $200 million in revenue this year.

Laikin grabs a Nokia 5160 phone off a conference table and removes the cover and battery. "We told manufacturers to ship us these parts in separate boxes. We'll put it all together and track everything in our computer."

The older wholesale business is still growing robustly at Brightpoint—wholesale revenues were up 51% in 1998. But the brighter future seems to lie in the newer approach. In serving carrier Omnipoint of Bethesda, Md., for example, Brightpoint warehouses the phones, handles returns and repairs, packages special promotions and stuffs brochures into customer bills. All Omnipoint need do is sell air.

Iridium, Nextel and BellSouth have entrusted most of their back-office business to Brightpoint. Its revenue from this segment is about triple the revenue for similar services at rival Cellstar.

When Laikin was just starting out, he remembers having to "pester Nokia to death" to get a five-state distributorship in the Midwest. Now he moves more Nokia and Ericsson phones than any other distributor.

The global handset market is expected to grow 30%, to 200 million phones, in 1999. Not good enough for Laikin. He says he can double his volume this year, to 20 million phones.

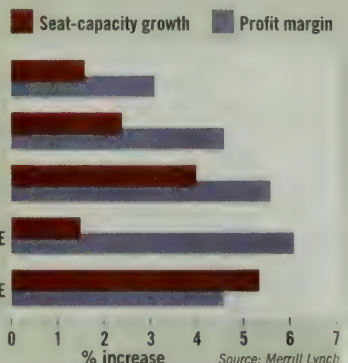
Travel & Transport

Friendly skies? Thanks to a sharp drop in fuel prices, 1998 is expected to be a record year, with industry earnings of $5.1 billion, or 12.5% above the year before. But that run could sputter out in 1999 as capacity jumps and fuel costs recover somewhat. Railroads had a tough year—stocks were down 10%—and 1999 isn't shaping up to be any better. The industry continues to be fraught with merger digestion problems and has been steadily losing market share to trucking.

Industry Buzz

- Airline capacity should rise 5.3% this year, a gain not seen in five years. "That's a real challenge for the industry," says Merrill Lynch's Candace Browning. That expected gain helped keep airline stocks flat for the year, while the S&P jumped 19.9%.
- One potential winner: American Airlines, which has aggressively bought up two smaller carriers (Reno Air and Business Express) and signed a marketing agreement with Alaska Air.
- Trucking fundamentals look much brighter for 1999, particularly for regional carriers. Morgan Stanley Dean Witter analyst James Valentine likes USFreightways, whose earnings he expects to jump from $2.59 to $2.90 in 1999.

Turbulence ahead?
Airlines have more seats to fill.



Profile

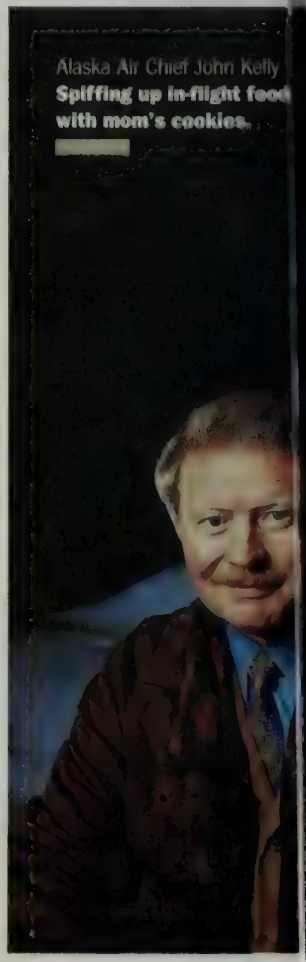
The budget gourmet

By Scott McCormack

BRAHMS PLAYS SOFTLY in the background as Alaska Air Group Chief Executive John Kelly gazes out the wall of windows in his Seattle office to a sweeping view of a serene lake and towering evergreen trees.

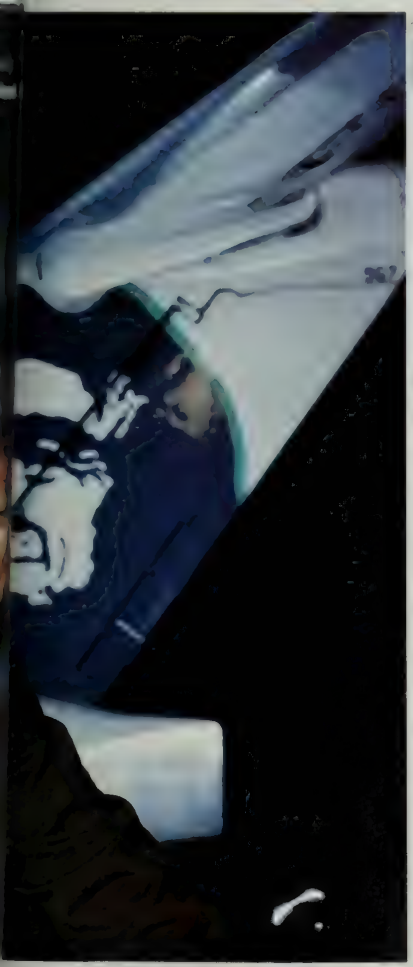
Kelly, 54, claims inspiration for this sedate ambience from a former boss who used to put his feet up on the desk and stare out the window. "He told me he was paid to think, and that's exactly what he was doing," says Kelly, explaining that he focuses on strategy while others handle the details.

For a minute, you almost believe him. But this is one chief executive whose personal imprint pops up in all kinds of details. One day while returning a rental car to Avis, Kelly saw how efficiently the agents processed customers by using handheld computers. So now Alaska Air has extra ticket agents with handheld computers checking in passengers at peak



COMPANY	PROFITABILITY		GROWTH				SALES	NET INCOME	OPER MARGIN	PROFIT MARGIN	DEBT/ CAPITAL
	RETURN ON CAPITAL		SALES		NET INCOME						
	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	5-year average %	latest 12 mos %	latest 12 mos $mil	latest 12 mos $mil	latest 12 mos %	latest 12 mos %	latest %
Air Express Intl	18.3	15.9	19.4	1.6	24.0	8.4	1,536	51	6.0	3.3	10.6
Airborne Freight	8.3	14.3	14.0	8.2	51.3	29.8	3,039	130	13.3	4.3	23.5
Alaska Air Group	8.0	12.8	10.0	11.2	53.6†	117.6	1,864	113	16.8	6.0	17.2
AMR	8.9	13.8	4.9	5.3	84.4†	16.5	19,240	1,340	19.0	7.0	33.3
Canadian Pacific	9.1	14.5	3.7	10.1	NM	51.8	6,244	1,062	28.5	17.0	21.2
Carnival	16.3	17.6	11.1	17.0	19.4	23.2	2,805	771	34.1	27.5	24.5
Continental Airlines	14.3*	14.3	4.9	13.1	NM	8.5	7,845	394	14.2	5.0	56.7
Delta Air Lines	14.8	20.6	3.3	4.9	71.2†	23.4	14,388	1,074	18.7	7.5	28.2
Expeditors Intl	21.0	27.2	24.4	13.3	29.4	40.1	1,025	46	8.3	4.5	0.0
FDX	10.4	10.3	13.9	26.7	30.6	5.1	16,089	488	12.7	3.0	23.9
Harrah's Entertain	10.3*	11.0	13.5	17.6	15.9	30.6	1,877	118	25.7	6.3	68.4
Royal Caribbean	11.0	10.1	11.6	49.8	20.8	76.3	2,590	330	27.2	12.7	50.0
Southwest Airlines	10.9	14.2	16.6	11.4	22.7	55.9	4,092	414	21.7	10.1	18.2
UAL	9.4	13.8	5.6	2.3	123.1†	–15.4	17,515	800	12.3	4.6	53.2
US Airways Group	14.9	29.0	5.0	2.0	NM	59.6	8,652	913	14.1	10.6	71.1
USFreightways	11.3	12.9	14.2	21.9	16.5	32.6	1,794	66	11.0	3.7	19.7
Werner Enterprises	10.9	10.8	16.0	14.0	13.3	22.5	837	56	19.3	6.7	13.1

NM Not meaningful. *Four-year average. †Three-year average. For further explanation, see page 128. *Sources: Forbes; Value Line and Market Guide via OneSource Information Services.*



travel times. When Horizon Air, Alaska's short-haul subsidiary, was looking for a new menu item, Kelly came to the rescue with his mother's molasses cookie recipe.

Instead of peanuts, Alaska serves real meals. Unlike rival Southwest Airlines, Alaska has a first-class cabin and assigned seats in coach. Those features, and maybe the cookies, are why *Travel & Leisure* and other major magazines rank Alaska Air at or near the top of their surveys on customer satisfaction. Only Southwest had a lower percentage of customer complaints in 1997.

No investor complaints, either: This discount carrier manages to turn a healthy profit, expected to be $127 million on revenue of $1.9 billion for 1998. Its stock and earnings per share have tripled in the past four years.

If Kelly understands what makes passengers happy, it's because he worked for a year as a ticket agent for Continental before eventually moving into sales and marketing. Later, as a vice president at Alaska with strategic responsibilities, the "hands-off" Kelly insisted on interviewing all flight attendants before they could be hired. He rejected nine out of ten.

Alaska's ride hasn't always been smooth. Beginning in 1993 the airline was forced to undergo wrenching change after Southwest and other low-cost carriers attacked its markets. Alaska slashed flight attendants, managers, newspapers, free wine in coach.

Alaska's chairman at the time, Raymond Vecci, was a brusque New Yorker who couldn't smile while wielding the ax. That didn't go over well at a company whose logo is a smiling Eskimo. Directors installed the affable Kelly in early 1995.

Kelly refocused the company on its core West Coast markets, mostly north-south flights between California, the Pacific Northwest and Alaska. He abandoned flights to places like Mexico City—a fiercely competitive market for business travelers—and replaced them with more lucrative resort routes. He expanded in southern California and Alaska, where his airline already had a strong presence and brand name. He filled more seats with cheap fares that matched, even beat, those of Southwest—$210 between Los Angeles and Seattle, compared with $229 for Reno Air and $346 for American Airlines.

As Southwest gears up to invade the East Coast, Kelly is not about to be seduced. He plans to keep focused on those north-south routes in the West, on which he has a 70%-or-better market share in many cases. "We know who we are," he says. "We don't want to be the world, just the West Coast." ■

Standouts

THESE FORBES PLATINUM 400 companies came to the top of computer screens for potential value, exceptional prospects or performance.

The low-P/E table lists the cheapest stocks based on 1999 estimated earnings.

Over the next three to five years, Wall Street analysts expect the companies listed in the projected growth table to experience the biggest gains in earnings per share. Here we only included companies for which at least three analysts have reported figures to IBES, a New York City research firm that tabulates earnin estimates.

The most profitable companies are those that ha posted the highest five-year average return on capital. C profit stars table lists stocks with the greatest annual fi year net income growth. This figure includes any nc recurring gains or losses.

Both the one-year and five-year stock market perfo mance figures are based on Dec. 1, 1998 closing prices

–JOHN CHAMBERLAIN

Low P/E

Company	Estimated P/E
Intermet	6.3
Texas Industries	6.5
UAL	6.6
Timberland	7.0
Advanta	7.2
Meritor Automotive	7.5
NVR	7.6
CellStar	7.7
US Airways Group	7.9
Nine West Group	7.9

Best returns

Company	5-year average ROC
UST Inc	92.1%
Avon Products	72.8
Schering-Plough	54.7
Ceridian	53.0
Dell Computer	52.3
Coca-Cola	49.9
Cisco Systems	44.1
Oracle	40.6
Microsoft	40.1
T Rowe Price	38.7

Profit stars

Company	5-year net income growt
Brightpoint	99.6%
Robert Half Intl	80.7
PeopleSoft	80.1
Hughes Supply	78.6
Viacom	72.7
Transocean Offshore	71.0
BJ Services	70.9
Tellabs	68.6
EMC	68.5
HealthSouth	65.3

1998 winners

Company	1-year price change
America Online	297%
Best Buy	219
Dell Computer	209
EMC	181
Ascend Commun	137
Gap	121
Cisco Systems	115
Granite Construction	113
Compuware	106
Sun Microsystems	100

1998 losers

Company	1-year price change
NovaCare	–77%
Ensco International	–72
Weatherford Intl	–65
BJ Services	–63
Global Marine	–63
Smith International	–62
Case	–61
Kennametal	–61
Tidewater	–60
Advanta	–59

Projected growth

Company	3-to-5-yr EPS
America Online	53%
Quintiles Transnati	37
PeopleSoft	35
AdminiStaff	35
Compuware	33
AirTouch Commun	33
Qualcomm	33
HBO & Co	32
Starbucks	32
Dell Computer	31

Source: IBES Express

Five-year winners

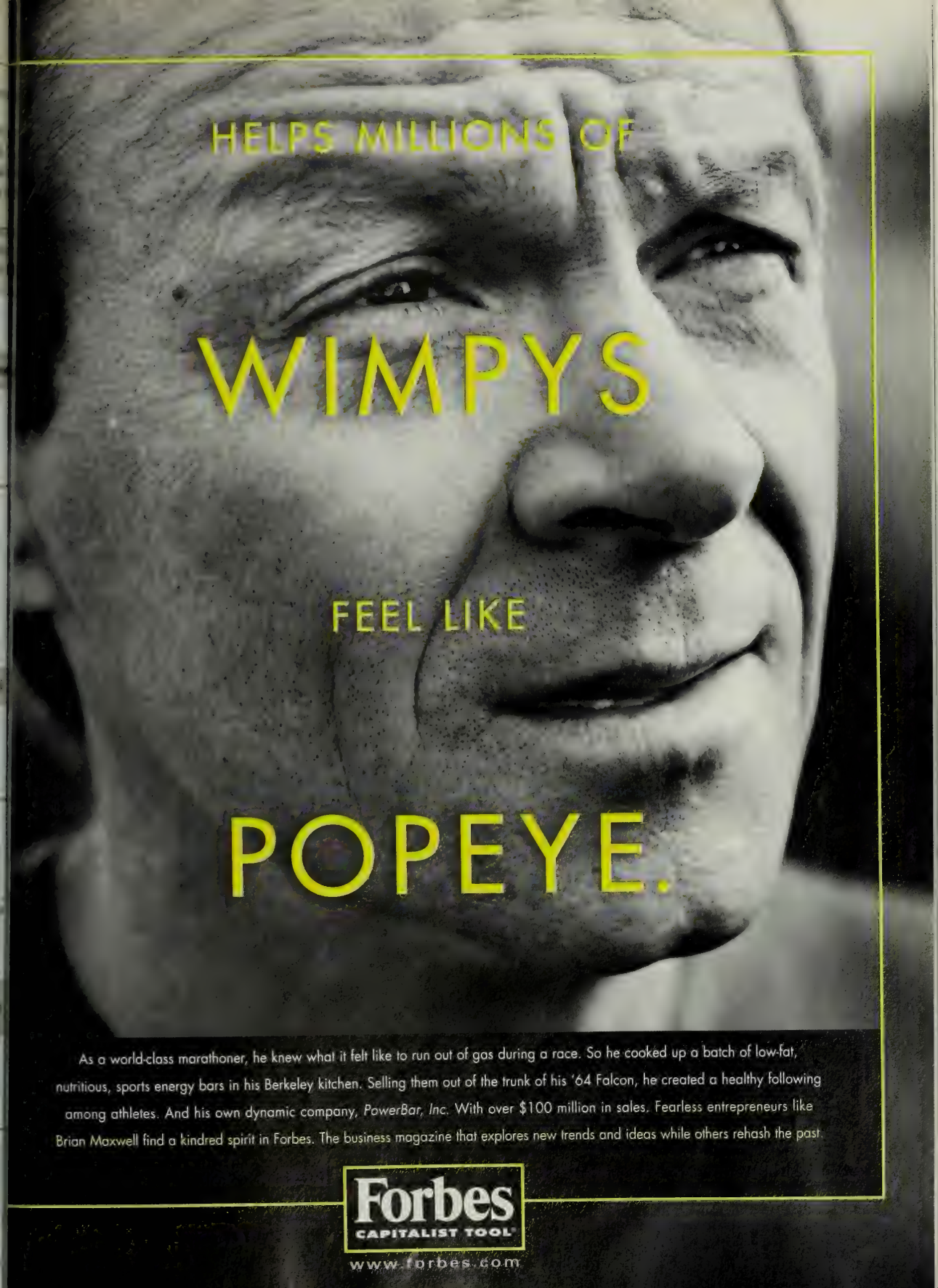
Company	5-year price change	Chief executive	5-year total compensation ($thou)
Dell Computer	9,054%	Michael S Dell	$7,592
America Online	4,814	Stephen M Case	219,623
Jabil Circuit	1,541	William D Morean	2,422
Microsoft	1,185	William H Gates	2,569
Cisco Systems	1,011	John T Chambers	58,579
Sun Microsystems	998	Scott G McNealy	78,289
Ames Dept Stores	942	Joseph R Ettore	4,506*
Robert Half Intl	931	Harold M Messmer Jr	49,462
PeopleSoft	930	David A Duffield	1,711
Compuware	915	Peter Karmanos Jr	4,878

*Four-year total.

Five-year losers

Company	5-year price change	Chief executive	5-year total compensation ($thou)
NovaCare	–80%	Timothy E Foster	$2,438[2]
Advanta	–67	Dennis Alter	—[3]
Buffets	–56	Roe H Hatlen	1,579
Nine West Group	–55	Vincent Camuto	4,619[1]
Inland Steel Inds	–46	Robert J Darnall	5,486
USX-US Steel	–45	Thomas J Usher	6,882[1]
Avado Brands	–45	Tom E Dupree Jr	1,593
Bandag	–36	Martin G Carver	3,277
Tenneco	–34	Dana G Mead	12,550
Timberland	–26	Jeffrey B Swartz	—[3]

[1]Three-year total. [2]New chief executive, one-year total. [3]New chief executive.



As a world-class marathoner, he knew what it felt like to run out of gas during a race. So he cooked up a batch of low-fat, nutritious, sports energy bars in his Berkeley kitchen. Selling them out of the trunk of his '64 Falcon, he created a healthy following among athletes. And his own dynamic company, *PowerBar, Inc.* With over $100 million in sales. Fearless entrepreneurs like Brian Maxwell find a kindred spirit in Forbes. The business magazine that explores new trends and ideas while others rehash the past.

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They missed

THE FORBES PLATINUM 400 is a roster of industry giants with the right mix of growth and profitability. The table at right shows some of the corporate heavyweights that failed to qualify.

Our scoring formula (see page 128) incorporates return on total capital, cash flow per share, and sales and net-income growth. Companies could be eliminated for showing poorly on any of these three measures.

Aircraftmaker Boeing, for example, suffers from production bottlenecks and restructuring charges, with the result that its average return on capital over the past five years is a meager 6%.

Great Atlantic & Pacific Tea has had a perennial problem with small, obsolete supermarkets. Perhaps A&P's latest round of store closings and upgrades will give it the boost it needs to make a future Platinum list. For now, the chain's 4% five-year average return on capital keeps it on the sidelines.

News Corp. and Time Warner own some of the world's most valuable media properties—highly leveraged. So their returns on total capital are low. They didn't make the list.

Nike and Xerox are in different businesses, but the two firms' 12-month profits collapsed for similar reasons: economic woes in Asia and Latin America. Meanwhile, profits at J.P. Morgan and Chase Manhattan were hammered by the collapse of the Russian ruble.

Companies that were disqualified by mergers are listed below.

–ALLISON SCHRADER

Big deals

Company	Acquired by/merged with	Industry
Caliber System	FDX	Travel & Transport
Camco International	Schlumberger	Energy Extraction
Chrysler	Daimler-Benz	Consumer Durables
Continental Homes	DR Horton	Construction
CoreStates Financial	First Union	Banking
Dart Group	Richfood Holdings	Food Distributors
Digital Equipment	Compaq	Computers
Dresser Industries	Halliburton	Energy Extraction
Giant Food	Royal Ahold	Food Distributors
Green Tree Financial	Conseco	Insurance
Money Store	First Union	Banking
[illegible]	Wells Fargo	Banking
[illegible]herer	Cardinal Health	Health Care Products
[illegible]munications	Alltel	Telecommunications
[illegible]s Products	Office Depot	Retailing

Big letdowns

Company/industry	Problem
Adobe/computer software	weak sales in Japan
Aetna/health care services	high administrative costs
Alcan Aluminium/metals	depressed aluminum prices
BankAmerica/banking	poor hedge fund investment
Barnes & Noble/retailing	hefty on-line startup costs
Bear, Stearns/financial services	investment banking off
Boeing/aerospace & defense	huge restructuring costs
British Airways/travel & transportation	persistent overcapacity
Cadbury Schweppes/food, drink & tobacco	sluggish US beverage sales
Chase Manhattan/banking	corporate banking hurt by Asia
CNA Financial/insurance	slumping property & casualty div
Computer Sciences/computer software	meager revenue growth
EI du Pont de Nemours/chemicals	depressed oil and chemical price
Fluor/construction	bloated operating costs
General Motors/consumer durables	strikes have battered net income
Georgia-Pacific/forest products & packaging	declining prices for paper produc
Glaxo Wellcome/health care products	expired patents hurt sales
BF Goodrich/aerospace & defense	profits off 41% past 12 months
Goodyear Tire & Rubber/consumer durables	soft tire prices
Great A&P Tea/food distributors	restructuring charges, weak sale
Hasbro/household & personal products	reduced sales to Toys "R" Us
Honeywell/capital goods	sluggish five-year sales growth
Household International/financial services	big restructuring costs
Hughes Electronics/telecommunications	net income off 58% past 12 mont
Imperial Chemical Inds/chemicals	soft commodity chemicals prices
Johns-Manville/construction	weak insulation prices
Kellogg/food, drink & tobacco	numerous restructuring charges
Kelly Services/business services	climbing operating costs
Merrill Lynch/financial services	income down 27% past 12 months
Minnesota Mining & Mfg/business supplies	strong dollar eroded net income
Mirage Resorts/travel & transport	room glut in Las Vegas
JP Morgan & Co/banking	low five-year net income growth
NEC/computers	falling chip prices
News Corp/entertainment & information	highly leveraged
Nike/household & personal products	slumping overseas sales
Phelps Dodge/metals	soft copper prices
Rhone-Poulenc/chemicals	venture with Hoechst a debacle
Royal Dutch Petroleum/energy extraction	weak oil prices
Sears, Roebuck/retailing	income down 12% past 12 months
SmithKline Beecham/health care products	sales hurt by strong British pound
Sony/computers	soft consumer electronics prices
Sprint/telecommunications	capital expenditures hurt net incom
Texaco/energy extraction	weak oil prices
Texas Instruments/computers	sluggish sales and profit growth
Time Warner/entertainment & information	highly leveraged
Toyota Motor/consumer durables	weak sales in Asia
Wendy's International/food distributors	net income off 38% past 12 months
Weyerhaeuser/forest products & packaging	weak forest product prices
Xerox/business supplies	poor sales in Asia and Brazil

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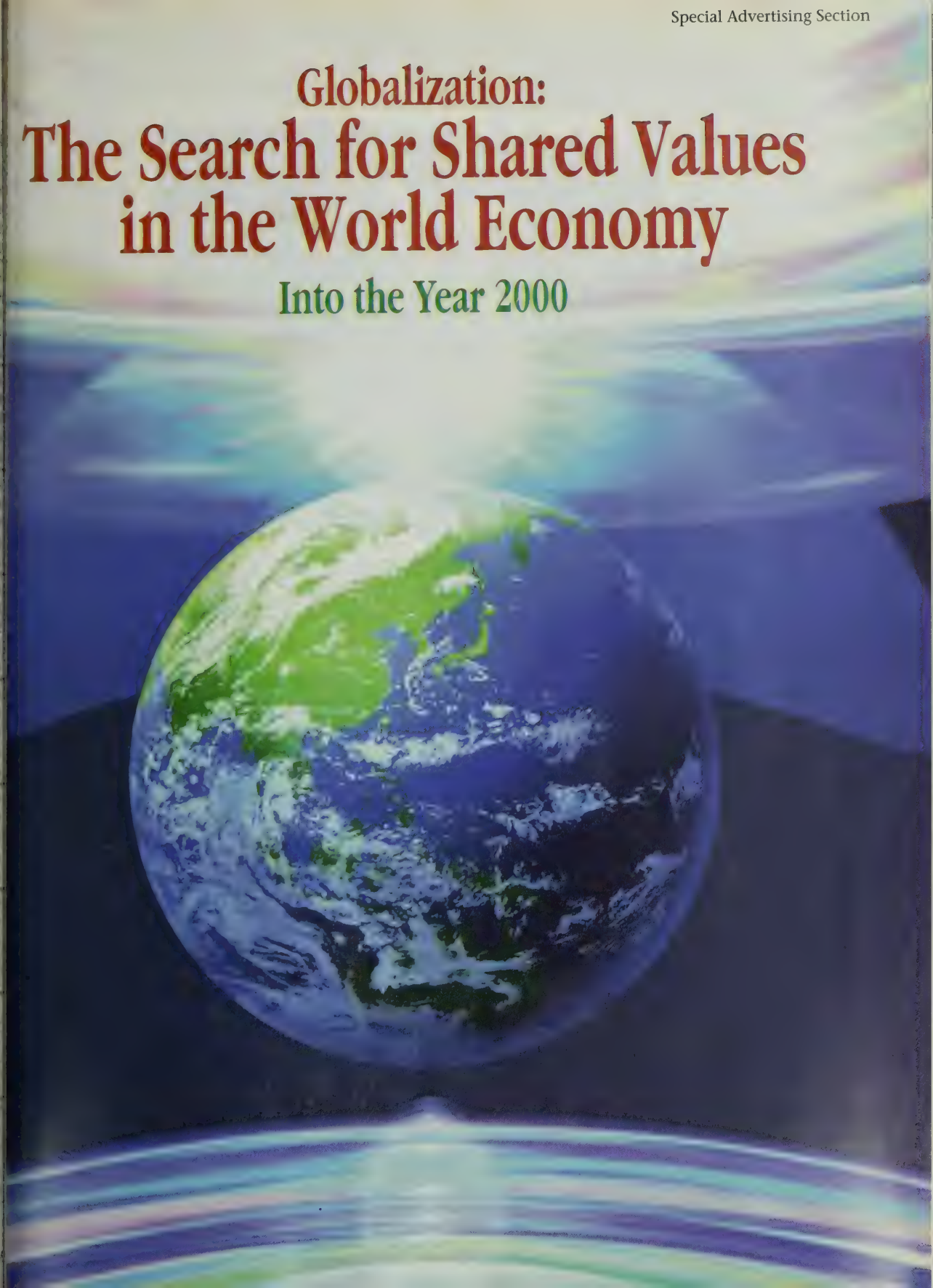
Globalization: The Search for Shared Values in the World Economy

Into the Year 2000



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There are Sakura branches extending throughout the world

Sakura Bank was formed through a merger of the Mitsui and Taiyo Kobe banks. Today, it is like a thriving *sakura*, or Japanese cherry tree, with deep roots in its native soil and branches reaching out in every direction to create a network of more than 90 offices in 25 countries.

- In the Americas, we were the first Japanese bank to offer investment banking services.
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- And we are one of the world's best-positioned banks to support international investors in Asia.

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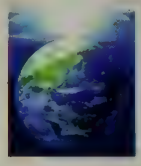

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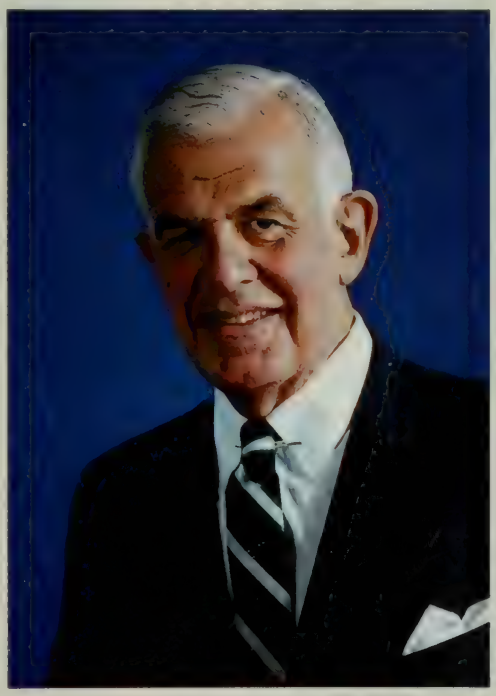
Pacific Partnerships for Future Growth

Although Americans have continued to benefit from a strong economy, they have become painfully cognizant of the ongoing crisis in Asia. The last year has been the most challenging in postwar era for the East Asian economies. Following a period of slow growth in the 1990s, Japan's economic ronment too has become more complex due to develop- its in domestic and international financial markets.

espite these challenges, we uld not lose sight of the strong damentals underlying Japan's nomy. Japanese per capita P remains among the world's nest, Japanese hold a large part he world's private savings, and an remains at the forefront of hnology in many fields. ause of these strengths and se of the United States, we e been able to act jointly to dress some of the challenges sed by the current Asian eco- mic crisis.



Even with the gloomy head- es, it is important to focus on many real partnerships across Pacific that have been forged years past, like that between an and the U.S. These partner- ips are flourishing today, chiefly e to increased communication. e revolution in telecommunica- ns and information tech- logies that is continually nsforming our lives means that dividuals from around the world can now learn directly m one another daily. Private business transactions are ong the strongest international bonds because they repre- nt shared interests.

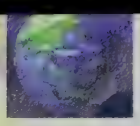
Japan remains America's largest overseas trading partner, hether in Asia or Europe. New partnerships between U.S. d Japanese firms abound. To enumerate but a few recent ccesses: AMC Theatres has introduced the multiplex cine- a mall to a growing number of Japanese cities; Toys 'R' Us as opened its 76th Japanese store; Boeing delivered its 00th 747 aircraft to Japan Airlines in November; and Uni- ersal Studios' $1.4 billion project in Osaka will be its first heme park outside the United States when it opens in 001.

Just as significant Japanese investment and transfer of anagement know-how boosted the U.S. economy in the 1980s, we are hopeful that American investment will do the same for Japan's economy. Major investments and acquisitions during recent months have made the headlines: GE Capital's joint venture with Toho Life Insurance, Merrill Lynch's takeover of Yamaichi's retail securities business, and Salomon Smith Barney's merger with Nikko Securities. Japan's "Big Bang" liberalization will allow U.S. financial firms to gain a larger share of the expanded market. This should be a positive development for Japanese citizens and for institutional investors, who will have greater savings options.

As Japan and America stand ready to enter the 21st century, we face common challenges as societies and as partners internationally. Domestically, we both face the profound social ramifications of aging populations. Internationally, our long-standing partnership preserves peace in the Pacific. Our joint efforts to eradicate polio worldwide, provide leadership in environmental protection and assistance to those in need underscore the importance and value of combining American and Japanese resources.

While each country has its own unique history and customs, the growing volume and frequency of contact between countries and their people mean that the level of shared knowledge and friendships has grown exponentially. As we enter the next millennium, advances in technology hold out the prospect of building a world based on better understanding, communication and respect. With these concepts underlying the new globalization, I am confident that the new era will be one of peace and prosperity in the Asia-Pacific region.

Thomas S. Foley
United States
Ambassador to Japan



Globalization: The Search for Shared Values in the World Economy Into the Year 2000

introduction

The global economy is undergoing far-reaching changes that will radically alter the way nations and companies conduct business in the 21st century. The continuing currency and stock market crisis in Asia, monetary troubles in Brazil and Russia and a slowing of economic growth in Europe and the U.S. have generated controversies about the nature, form and future of the free-market capitalist system. The current dialogue about possible solutions has dramatically underscored the conflicts inherent in adopting the standards of any single country or organization. Western values, generally represented by the U.S. and Europe, sometimes conflict with Asian values promoted by Japan, Singapore and other countries in the region.

The need for a spirit of multilateralism and cooperation in discussing these trade, economic and financial matters is recognized by all countries involved. Indeed, a global search is under way to find standards and values that can be embraced by all governments around the world – standards that will integrate the best customs and traditions with modern capitalism. For its part, Japan's business community is thinking hard about these issues. In the following series of interviews, the country's top business leaders explain how their companies will cope with the challenges presented by today's changing global economic climate.

CANON

The key to survival for any large multinational company in today's gyrating global economy is "balance and diversification," not only in products, services and technology, but also in graphical reach, according to Fujio Mitarai, presi- & CEO of Canon Inc., a world leader in imaging information technology.

n today's business climate, you can't have all your in one basket," Mitarai says. "You must be able vercome a business slump in one area of your ations with a lit in another area," he adds. "It's ntial to survival."

itarai knows what he's talking about.

hile Canon's home ket, Japan, remains he grips of a reces- and demand in the n region has been gish, strong consum- pending in the U.S. a strong economy in ope enabled Canon ncrease its sales and earnings during the first of 1998 at a time when most Japanese npanies have suffered significant losses.

"We are focused on developing the new technologies that will enable us to maintain our leadership in the new multimedia era."

These are very difficult times," Mitarai s in fluent English. "No matter where ur headquarters is located, you can't think ionally. You must think globally and m an international perspective."

rom where he sits in his executive offices suburban Tokyo, Japan is increasingly attractive in terms of its tax treatment of ltinational companies like Canon, with effective tax burden of about 50% com- red with around 40% in the U.S. and even s in some European locations.

Canon already has substantial regional erations in the U.S. and Europe that could converted into a consolidated financial, if t administrative, headquarters for the mpany, if this onerous financial burden ntinues to exist, Mitarai warns.

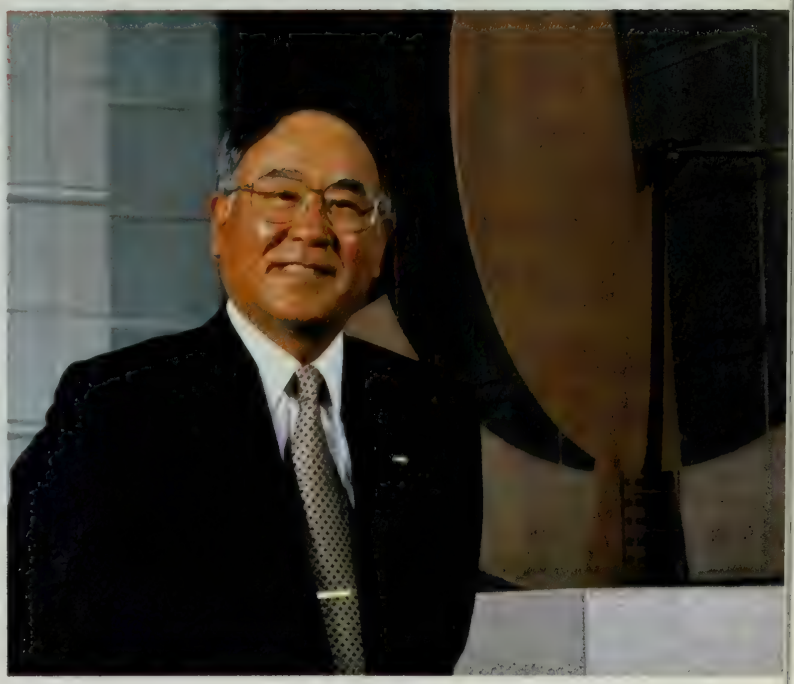
"Japan is in serious need of tax reform, espe- ally at the corporate level," says Mitarai. "As private company, we end up working for the vernment instead of our shareholders," he adds, sug- sting that a 35% effective tax rate would keep him om thinking about relocating Canon's headquarters utside of Japan.

Keeping a wary eye on the future course of Japan's omestic economy, which he believes may get worse efore it gets better, Mitarai is strengthening his company's operations in the U.S., where he is setting up a new Bubble Jet printer plant in California, and Europe, where Canon's French research operation has taken a lead in pioneering new telecommunications technologies for the continent.

During the next five years, Mitarai wants to establish independent consolidated operations in the U.S. and Europe to design, manufacture, market and service products for local consumers.

At home, Canon is reforming operations with an eye to cutting costs and improving efficiency.

Mitarai set up six committees last spring under a management reform program designed to improve the company's operating efficiencies across the board, from R&D, product development and procurement to production, distribution and inventory control.



FUJIO MITARAI
CANON INC.

"Companies need to undergo some kind of restructuring every three years just to keep up with change in the marketplace, in service and technology," Mitarai says. "Otherwise, they will fall behind and end up losing."

Mitarai is obviously a man who doesn't intend to lose in the global race to develop new products, services and technologies for the new multimedia era.

ITOCHU

Japan's top executives are rarely so candid when it comes to describing personal goals for their companies as Uichiro Niwa is when he talks about his mission as the new president & CEO of ITOCHU Corp., one of Japan's largest general trading companies.

A 35-year veteran of ITOCHU, Niwa was appointed last April as the company's sixth CEO since the end of World War II. He immediately made his priorities clear: "My role as president is to make money."

In words that are surely sweet music to the ears of both employees and shareholders, Niwa says his objective is to make his company "more attractive, powerful and exciting," and to improve its profitability and global ranking.

"We are minimizing risks by utilizing business expertise, reevaluating plans for new business ventures and carefully monitoring our debt holdings."

UICHIRO NIWA
ITOCHU CORPORATION

"My objective as president is to return as much as possible to employees and shareholders," he explains. "Eventually, I expect ITOCHU's world rank to reach number one, which means becoming an excellent, strong enterprise, capable of competing with such leading global companies as General Electric and General Motors."

That means, he adds, establishing a "common sense and rationality" for ITOCHU. "I am absolutely committed to developing ITOCHU into a globally integrated corporation with a solid revenue and earnings base."

This represents a strong commitment from th from Nagoya, which is where Niwa grew up, grad from Nagoya University in 1962. But as cor employees — and shareholders — know, the ITOCH utive is a man of his word.

A dynamic, highly personable CEO who is flu English, Niwa plans to emphasize ITOCHU's streng carry his company through the hard times of a globa omy in transition and plagued by deflation.

This means, essentially, minimizing risks, he Because trading panies are graphically di multilayered org tions, they advantages that companies do n

For example, points out ITOCHU curren exporting canned tuna from Indonesia Middle East and other areas of the because it is cheaper than trying to sell it Japan. Another example: If ITOCHU's ma ery department in Tokyo is not able to pr all the services and price-support necessa export textile machinery, the textiles d ment may join in and use its resources tc close the sale.

Global currency fluctuations may caus eign exchange losses for some part ITOCHU, but they can also generate wi profits for others. And while the comp domestic Japanese business may be suff from the ongoing recession, its North Ame operations are thriving and enjoying r profits, he notes.

The company is offsetting risks in a nu of ways, including taking advantage o increased competitiveness that results global currency fluctuations and incre exports to Third World countries, he says.

Niwa sees the recent efforts by Malays impose restrictions on foreign investment currency flows as temporary, and he pleac international understanding.

Niwa says that massive outflows of short-term ca and unreasonable actions by U.S. hedge funds are ex bating the current economic turmoil in Asia and ign demands for restrictions. "But the liberalization of and investment has been an essential ingredient in economic development, and I hope that future Asian nomic policies will not deviate significantly from this losophy of openness. But we must be patient," concludes.

NIPPON STEEL

When Akira Chihaya took over the helm of Nippon Steel Corp. last April, he faced a formidable challenge: his home market — Japan — was sliding into a deep recession, overall demand for steel products was poor as a st of the currency crisis in East Asia.

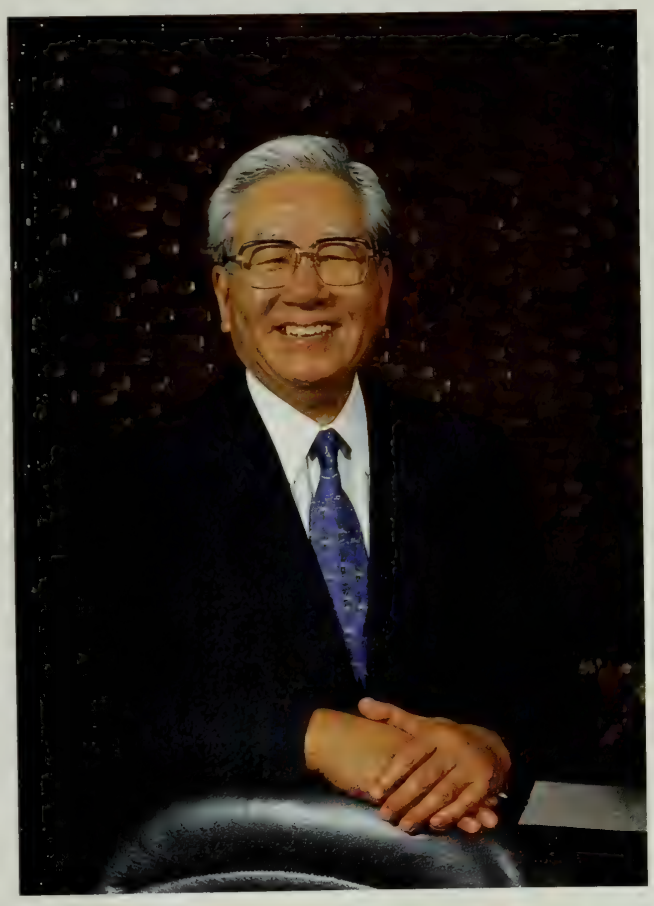
ther than retreat from the marketplace or reduce company's commit- t to its mainstream ness, Chihaya ead set about gthening the scope reach of the world's est steelmaker, hasizing profitabili- nd operational effi- cies while increasing company's stake in new technologies will move markets he next century.

Steel is — and will tinue to be — our st important busi- s," Chihaya says. ue, it is a cyclical busi- s with many peaks l valleys," he adds. t you can't stop and t according to market ds. You must push ad and develop the ducts that will be eded when better es return and further e-tune your opera- ns to increase profit- lity and make them re efficient."

With less than a year office, the new ppon Steel CEO, a t-spoken, contempla- e man with a deep erest in Chinese poet- known as a deep inker, is moving ahead ldly on both fronts.

As a result of cost cutting, reorganization and devo- n to the bottom line, his company's steel division is covering strongly and helping to maintain Nippon eel's profitability. At the same time, Chihaya is rein- rcing the company's efforts to develop new products at will contribute to human safety and the environ- ent as well as to future business.

"Our growth has been and will be firmly rooted in our technological strengths."



AKIRA CHIHAYA
NIPPON STEEL CORPORATION

For example, the company is researching a new steel that is twice as strong and durable as conventional steel, and which is expected to provide a sharp lift to global steel demand when it is marketed.

"The new steel could be used to build bridges and buildings that are taller, stronger and longer than is currently possible," Chihaya says. Pointing to the new 2.5-mile-long Akashi Kaikyo Bridge in southwestern Japan, the world's longest suspension bridge, that was built in part with Nippon Steel's high-strength steel-wire cables, Chihaya boasts, "In the future, we will be able to build a bridge twice as long as Akashi."

As a member of an international consortium made up of 35 steelmakers from 18 nations, Nippon Steel is searching for ways to reduce the weight and cost of steel used in automaking while providing extra safety for car occupants in the event of a collision.

The company also recently announced the development of a new thinner, lighter steel that will reduce the weight of steel cans used in retail products and make them easier to recycle. Another product, electrical steel sheets used to make power generators, is helping reduce electricity transmission losses by as much as one-third from previous levels in 1935. The company enjoys a 20% share in the global market for such sheets.

As for his personal goals as Nippon Steel's new president, Chihaya states quite simply: "I would like to make Nippon Steel a stronger and growing company whose presence demands recognition or even inspires the awe of competitors in the global megacompetition of the next century."

IBJ, Big Bang and Grand Alliance

The IBJ Group is making good progress in entering the twin businesses of investment banking and asset management via specialist subsidiaries. Externally, strategic partnering and the specialist subsidiaries are strengthening the Group. Internally, the Group is being strengthened by the introduction of global standards in its management methods. IBJ should be the winner in the Big Bang race.

Financial deregulation leads to more profitably employed resources

"The Japanese financial institutions are currently engaged in a battle for their very existence. The key to survival is a clear management strategy that exploits strengths and specialisations", stresses Mr Masao Nishimura, the IBJ President. "IBJ foresaw this environment and took steps to concentrate resources in a limited number of specialist subsidiaries in the particular areas of IBJ strength."

IBJ Securities was established in 1993 and has already grown to the size of the large domestic securities companies in debt products. For example in corporate bond underwriting, the securities subsidiary was ranked Number 4 (market share 9.5%) in 1998/99 first half and Number 1 (market share 15.2%) in 1997/98 – the top ranking on account of the large domestic securities companies being hobbled by a scandal.

The President of the subsidiary, Mr Hiroshi Nakamura, said, "We are prevented by the MoF from entering the equities business so we still have one hand tied behind our back, as it were, but clearly we have made great progress in just five years. The credibility of the IBJ name and the strength of the IBJ client base have meant that things have gone really quite exceptionally well".

In asset management there is IBJ NW Asset Management established in 1985. At the end of June last year, funds under discretionary management were just over ¥2tr placing it

Masao Nishimura
President and CEO

second in the industry. The Investment Trust Management (ITM) subsidiary, IBJ ITM, was established in 1994 and at the end of March last year was ranked second among the bank-related ITM companies on a net asset value basis. In the entire ITM industry it is ranked 14.

The President of IBJ NW Asset Management, Mr Takuro Ban, said, "The information and analysis capability of the company as a member of the IBJ family is appreciated by the clients". Mr Toshiki Aoki, the President of IBJ ITM remarked, "With the banks able to sell SITs, we hope to move product through the regional banks' network of branches".

IBJ Trust Bank was established in 1995 and at the end of March of this year had trust assets of well over ¥4tr: the leading position among the new subsidiary trust banks. The President, Mr Isamu Koike, said, "We have contributed to the development of the security lending market through our new product, the Repo Trust. markets have always been bus opportunities for us".

In this fashion the consti members of the IBJ Group expanding their operations and t all possible on account of the qu of personnel, know how and c base within the Group. That is denced by the fact that no Japanese financial grouping ha managed to make the same degr progress in the new business now being made available as pa Big Bang.

In April last year, IBJ establi a financial engineering developn subsidiary, IBJ Financial Technol The President, Mr Katsuto O said, "We are aiming at being a rate company in the field".

Clearing away the incubus of the past

As Mr Nishimura has said, "H quickly the bad debts can be wri off will determine the winners in Bang". IBJ has the bad debt issue key point in its strategy. The write- in 1998/99 will be accelerated on original budget. In the half yea September 1998, the write-off will ¥275bn and up ¥225bn on the or nal budget. The problem assets being packaged and sold off removed entirely from the bala sheet. These non-performing loan s amounted to some ¥285bn in the f half. Mr Nishimura stresses, "Most the bad debts have already been w ten off. It would be fair to say that bad debt problem is largely behind

Mr Nishimura was also the first k president to say that his bank was pared to apply for public funds for pitalisation under the provisions the recently passed Financial bilisation Act. "The world financial mmunity wants to see the Japanese ks soundly recapitalised. It is a ial responsibility in my opinion".

1999/00 is the first year of the rth medium term business plan. e mission statement has been set as, he provision of sophisticated finan- l services world wide both as an estment bank and as a commercial nk". Within that is a fundamental ange of management style as Mr shimura said, "The old protected rkets and easy-going ways have no ce and there has to be a revolution thinking. Profitability, account- ility and global standards are the w objectives".

Big Bang and the strategic alliance with Dai-ichi Life

BJ and Dai-ichi Life announced in rly October that they were going to engthen their equity relationship d co-operate across all business areas. his caused something of a furore in okyo as not just another major agree- ent linked to financial deregulation nd Big Bang – an agreement between bank and a life assurer had never een seen before.

Firstly Dai-ichi would subscribe to dditional share capital in IBJ and IBJ ould contribute to the capital fund f Dai-ichi, which is a mutual compa- y, secondly Dai-ichi would partici- ate in IBJ Financial Technology, hirdly the two companies would co- perate in syndicated finance, and ourthly the asset management sub- idiaries would be amalgamated.

The benefits of this agreement has been commented on by many analysts. Dai-ichi has a network of 2,100 branches nationwide and 10m policy holders. As a long term credit bank, IBJ for its part has fewer than 30 branches. The ability to exploit the Dai-ichi retail network is very important for IBJ which has been largely wholesale in its operations. Attacking the retail market is of key importance to IBJ: following the December liberalisation of the restrictions on the marketing of SITs the two companies have started to cross-sell their SITs.

The decisive meaning in the IBJ/Dai-ichi agreement will only come with the advent of an umbrella Financial Holding Company, FHC, and the demutualisation of Dai-ichi. That of course depends on legislation permitting the life companies to demutualise. Mr Nishimura said, "It would be fitting if the two companies could move to a single FHC structure in their centenary year, which happens to be 2002. That is an important restructuring".

The agreement with Nomura

In mid-May last year there was the announcement of a co-operation agreement between IBJ and Nomura Securities. The news of this agreement between the leading long term credit bank and the leading securities company was something of a catalyst. Since then there has been a large number of similar announcements involving the domestic financial institutions, the leading foreign institutions and the keiretsu institutions.

At the time there was the immediate criticism that, compared to the mergers in the EU and the US, the agreement lacked punch. Later, however, the implications of the agreement became better understood. It was seen that IBJ had effectively taken an option on an alliance with Nomura in a nuanced and low risk structuring. It was an agreement with Japan's leading securities company that could be expanded into an alliance in the fullness of time. The impact of the agreement grew. It became clear that IBJ was executing a sound policy ahead of the full impact of the financial services liberalisation programme called "Japan's Big Bang".

In derivatives the two partners have agreed to set up a UK joint venture company, IBJ Nomura Financial Products, with a capital of ¥50bn with a fully owned Japanese subsidiary as the Tokyo branch. The joint venture will therefore benefit from its status as a "foreign" securities company and be able to compete on a level playing field with the other foreign houses in Japan. This counterintuitive approach has attracted a lot of attention. Business lines will be derivative products in interest, forex, equities, and credit plus plain vanilla equities and debt trading. IBJ's credit analysis and Nomura's securities know how will make a strong combination.

At the time of the announcement of the agreement, Mr Nishimura said, "It is the purpose of the joint venture to make an absolutely clean start and be free of all the unwanted baggage from the past. There should be a new corporate culture formed with a performance oriented personnel and remuneration structure. Then there will be a reverse take over of the parent companies in culture terms".

Agreements and Alliances

The agreement with Dai-ichi is a full alliance. The agreement with Nomura is an agreement to consider a full alliance: it is therefore of an essentially limited nature at this stage. "We shall have to wait and see how it develops", said Mr Nishimura. Eventually there could even be a troika Grand Alliance.

In this way IBJ has very cannily placed itself on the Big Bang chess board. However, there is no exclusionist intent. "An agreement with a foreign financial services player is being considered with an absolutely open mind", concluded Mr Nishimura.

IBJ
INDUSTRIAL BANK OF JAPAN

TOYOTA

Despite many problems facing today's global economy, Toyota's commitment to the environment and globalization remains unchanged, according to company president Hiroshi Okuda. In fact, he says, the current economic and financial turmoil rocking many global markets has only strengthened the auto giant's resolve. Toyota plans to increase its world presence and intensify its search for more fuel-efficient, cleaner-running cars and trucks.

"Preservation of the environment is one of the most important issues we face today."

HIROSHI OKUDA
TOYOTA MOTOR CORPORATION

"Whatever the current economic environment, we have to be where our customers are," Okuda says. "That means going the extra mile to provide them with the vehicles they need for their business or personal use. We want to offer our customers new vehicle possibilities, while at the same time reshaping our manufacturing operations to maximize global efficiency."

With 53 manufacturing facilities in 24 countries, Toyota is one of the world's largest auto producers with global sales of over $88.4 billion in the fiscal year ended March 1998. The company currently makes one out of éve vehicles it sells outside of Japan, and it will incre overseas production even further.

In North America, Toyota recently completed expa of its Corolla/Camry Solara plant in Canada, which pr es nearly 200,000 vehicles annually, and it is increasin production of its top-selling Camry, Avalon and S vehicles at its Kentucky plant. In addition, a new In truck plant, with an initial annual capacity of 100,00 size Tundra pickups, and a engine plant in West Virginia onstream in 1998. Toyota is al planning to boost the capacity truck plant to 150,000 annual the year 2000, and it will automatic transmission lines West Virginia plant by spring Total vehicle production capaci the end of 1998 was 1.2 m vehicles annually in North Amer

During 1998, Okuda travele Britain, where he offic announced the opening of a se U.K. assembly plant for the Co liftback.

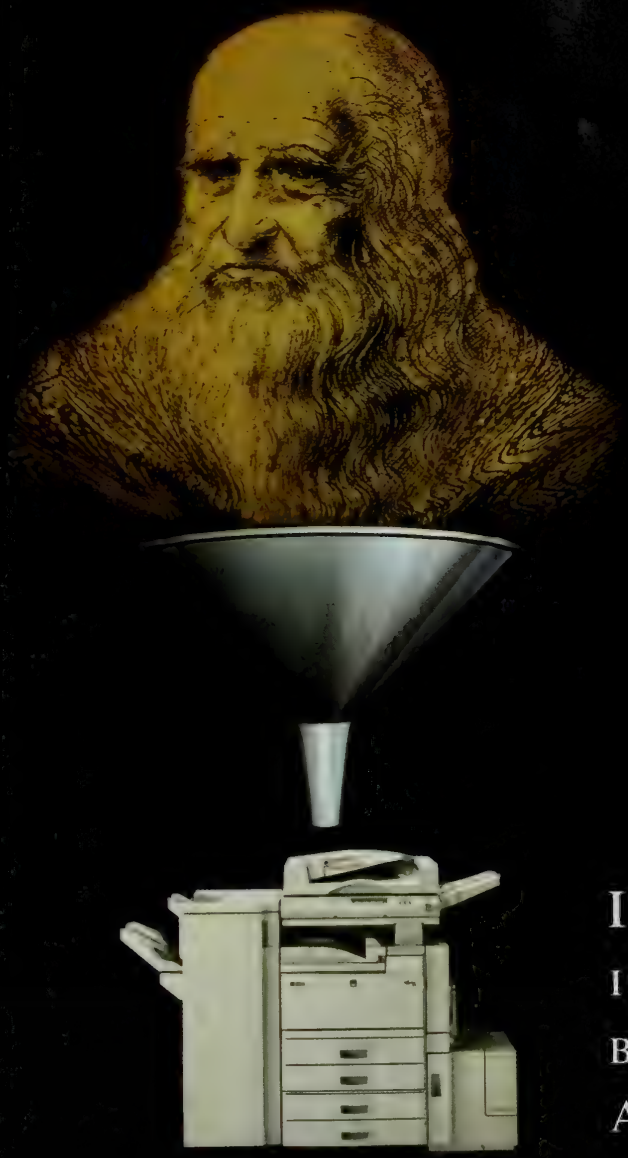
A second European autom manufacturing plant has started struction in Valenciennes in n ern France and is scheduled to b producing "Yaris," a two box pact car designed and developed cially for the European marke early 2001.

Elsewhere, Hilux pick-up truck now being produced in Argen a new manufacturing facility Corolla opened in Brazil — and operations are scheduled for Ind the end of 1999.

In keeping with the compa commitment to develop environn tally friendly vehicles, Toyota in duced its Prius sedan in Japar December 1997. The world's mass-produced hybrid car runs c combination of gasoline and electric power, achievin miles per gallon (Japanese 10-15 mode) while drastic cutting exhaust emissions.

The development of the new car reflects Okuda's b that efforts to increase business and protect the envi ment are not mutually exclusive.

"We feel that sustainable development — a combi tion of environmental protection and economic growt is the only possible direction for humankind to take finding solutions to environmental issues," he says.



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KIKKOMAN

In its search for ways to address its lingering economic slowdown, Japan may well look to the experience of the U.S. during the late 1980s, when the stock market plunge and economic decline threatened its global leadership, according to Yuzaburo Mogi, president & CEO of Kikkoman Corp., Japan's leading manufacturer of soy sauce.

"The U.S. restored its economic strength by encouraging entrepreneurship and new venture businesses," Mogi says. "Many of them started unique, niche-type of businesses, especially in the high-tech area, and they were able to reintegrate into the economy.

"But however they did it, entrepreneurship was the key to America's economic revival," he adds. "We should learn from this example."

While the government could help reinvigorate the economy through economic deregulation, administrative reform, greater transparency in its policies and, most important, tax cuts, says Mogi, who heads the Committee on Political Affairs of the Japan Association of Corporate Executives, companies can also help by encouraging more initiative among their employees and less bureaucracy.

At Kikkoman, for example, Mogi is encouraging employees to propose new business venture ideas, and he promises even to become a partner with them if the idea seems viable. "We are encouraging our employees to be more productive and efficient in their jobs. We want to instill a spirit of entrepreneurship within the company."

While the food business tends to be more recession-resistant than others, Kikkoman isn't depending on Japan's bureaucrats to jump-start the economy. The company is steadily increasing its sales of wine, traditional sauces and several new products at home, while also stimulating global markets for soy-based products through new overseas production plants and marketing efforts.

"We are encouraging our employees to be more productive and efficient in their jobs. We want to instill a spirit of entrepreneurship within the company."

YUZABURO MOGI
KIKKOMAN CORPORATION

For example, in October Kikkoman opened a $46 million plant in California implementing a Wisconsin facility that has been feeding a growing American appetite for soy sauce for the past quarter century. With the U.S. market growing by 5% annually, Mogi wants to satisfy demand by expanding satellite facilities in other key market areas like the U.S. in the future.

The California plant also followed a similar Kikkoman facility in the Netherlands that went onstream in October 1997. The company plans to capitalize on the growing popularity of soy-based sauces in Europe with further expansion, new promotional efforts and more indirect political corporate philanthropy which has made the Kikkoman name synonymous with good corporate citizenship.

For example, at the opening of Kikkoman's Dutch plant, Mogi announced that his company was donating 1 million guilders to a project that is trying to create a unique water reserve in the local area. Another 300,000 guilders was given to the Rembrandt House to help build an exhibition room in a museum dedicated to the famous Dutch painter.

"We wanted to be associated with a name that projects an image of high quality," Mogi says. "It speaks well for our products and our relationship with the local community."

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The building succumbed at last to time. But to this day, Mr. Wright's motifs grace our Peacock Room. And in both Tokyo and Osaka, the distinguished decor of our Old Imperial Bar is inspired by his designs. This way, we honor his memory. And oblige the guests who honor *us* by returning, year after year, to savor timeless hospitality in the Wright environment.

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http://www.imperialhotel.co.jp/

SHISEIDO

Throughout its 126-year history, art and beauty have been as important to Shiseido Co., Ltd., Japan's largest cosmetics manufacturer, as making money. Each successive president who has run the company has paid the appropriate homage to the bottom line: the company ranks fourth in the world with sales last year topping $5 billion. But what has distinguished Shiseido from its peers and made its name synonymous with quality and sophistication has been an operating strategy that has made beauty and art an integral part of its corporate culture.

"As a company, we have consistently pursued advances in beauty and knowledge," says President Akira Gemma. "For us, beauty is art and knowledge is science. They are integral concepts of our corporate history and philosophy and are fully reflected in our diverse line of skin care, makeup and fragrance products. It is who we are. It is our corporate culture."

"We want to show that our commitment to beauty is not a fair-weather policy; that it is continuing and constant and can be used to create something of substance for our customers."

AKIRA GEMMA
SHISEIDO CO., LTD.

Through the years, the company has repeatedly told its customers outside of Japan who it is through a series of exhibitions, shows and retrospectives in major international cities including Sydney, Milan, São Paulo, London and Brussels. Last year the company staged a 100-year history of Shiseido's commitment to beauty at the Musée des Arts Décoratifs in Paris.

More recently, the cosmetics company educa Japanese customers about its corporate culture first-time-ever exhibit in Tokyo last October "The Meme Exposition — Generations of Art an ence," which highlighted what it calls Shiseido's porate genes" — the elements of its past and p that are being passed on to future generations.

The word "meme" was first used by a British gist to describe imaginary genes that contain cu information that are transmitted through genera and give living crea their essence and di tiveness.

"Just as living crea pass on their through successive ge tions, we as a compar relaying the qualities attributes that have made our corp culture so unique and distinctiv more than a century," says Ger "We call this history and tradition 'Shiseido meme,' which we wa explain to our Japanese customers friends and pass on to future ge tions."

The "Meme Exposition" co Shiseido's history and culture thr tastefully designed displays of prod including its very first cosmetic, E mine, which was produced 100 ago. It also features grandly displ newspaper and magazine adve ments, photos and posters that re the constant evolution of the co ny's concept of beauty as embodie its products through the years. Sc uled as it was in the midst of Ja worst recession in 50 years, the ex underscored Shiseido's commitmer an ideal. It was an expense that o companies might have been tempte forgo due to belt-tightening or cutting policies.

Gemma adds that the fact that the exhibit was cre designed and executed by Shiseido staff members "highly prized by our customers because it shows t that it is coming from the heart of the company and not simply a marketing tool to increase business.

"Through exhibits like this one in Japan and ones we are organizing overseas, Shiseido is able to d onstrate why we are a leader in our industry — a p tion we intend to strengthen further in the futu Gemma concludes.

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Japan's Current Banking Problems Offer New Opportunities for Local And Foreign Financial Servers

For anyone who has been following the developments in Japan's banking sector for the past few years, it's hard to find any silver lining beneath the dark clouds that hover over a system that is generally considered overregulated, overstaffed, undercapitalized and burdened by an estimated $400 billion to $1 trillion in bad loans.

But Alicia Ogawa, one of Tokyo's top banking gurus and an analyst who has been one of the system's most outspoken critics, believes that a new system may ultimately rise from the ashes of the current banking crisis, one that will be more consumer-friendly, more efficient and better able to compete internationally with American and European financial institutions.

ALICIA OGAWA
SALOMON SMITH BARNEY (JAPAN) LIMITED

"A combination of deregulation and fallout from the bad loan situation is beginning to force the system to change. These changes ultimately will generate benefits for the Japanese consumer and opportunities for foreign and local institutions in the area of financial services," says Ogawa, who is head of research for Salomon Smith Barney in Tokyo.

"Financial services, in the American sense of that term, really don't exist in Japan," says Ogawa. "Banks take deposits but offer only very low interest rates. They make loans but under very limited conditions. They transfer money but at very high costs to users. And that's about all they can do."

"The same is true in the securities industry," she continues. "Ver companies can issue bonds, there asset-backed secu market, stock optio a brand-new co and the comm paper market is limited. Services are restricted.

"And this is also t financial services o by insurance comp fund-management and others," she "Many services comm the U.S. really don't in Japan. So there tremendous opportu here for both local foreign firms — espe given the recent sta the so-called 'big financial reforms inte to make the system competitive with We systems. And in the the consumer will b winner."

Deregulation, for example, has allowed fo banks like Citibank to enter the retail market aggressively and offer customers new banking se es, such as 24-hour access to their money thr automated teller machines — something Japa banks have not yet adopted, but have indicated intention to do so in the near future.

"Competition will force local banks to pro more diverse services and allow customers to greater control of their money," Ogawa says. "Pe have put up with the current system largely bec they didn't know there were other choices. But bank and others are offering numerous new fina products."

re important, with the recent expiration of ten- postal savings deposits earning 7%, Ogawa says, is now a large pool of money looking for s higher than the 0.23% interest extended by banks. And, of course, there is the pool of per- assets of the Japanese themselves, which is esti- l at more than $13 trillion, potentially available vestment.

lot of this money will find new homes in some e higher-return financial products being sold by gn and domestic institutions in Japan and eas," Ogawa says. "Anyone who comes along a product that can gener- return higher than 23 points," she says, "will a bonanza."

rporations will be at the ront of the demand for financial services, Ogawa ves. Unlike the U.S., in most firms have no urse to straight bonds, mercial paper or asset- ed securities. In terms of ncing, most Japanese panies have higher credit gs than the banks them- s, she points out. "They raise money cheaper on own than the banks can to them.

This means there will be hendous opportunities in securities market connect- with corporate financing, ch will be available to foreign and Japanese rities companies," Ogawa s.

he same is true of changes ng place in the deregulat- insurance industry, she continues. "In the past, es of products were set by the insurance groups. now they are being deregulated, which allows the ver, more efficient producers to offer lower prices l take market share away from traditional suppli- ." Ogawa says.

At present, there are really very limited choices in urance in Japan. And some companies will benefit m this, just as those that are now starting to sell o insurance by telephone are enjoying a booming siness," she notes. "Some foreign companies are king strong inroads in such areas as disability urance, another product new to Japan that offers great promise."

So does this mean Japan's financial services market will be dominated by foreign financial institutions?

Of course not, says Ogawa, a native New Yorker who studied classical piano before entering the banking business.

"No foreign financial institution is going to be able to compete with its Japanese counterpart in terms of funds collection," she explains. "That's true of banking in most areas of the world. "People feel more comfortable dealing with their own local institutions, which have been a part of their community and business environments for years, rather than a foreign institution."

"A combination of deregulation and fallout from the bad loan situation is beginning to force the system to change. These changes ultimately will generate benefits for the Japanese consumer and opportunities for foreign and local institutions in the area of financial services."

But in terms of value-added services, funds management and new technology to make systems more efficient, foreign banks will have an edge, she says. Therefore, "the trick for foreigners will be to tie up with a big money bank that needs their services and technology to form a natural partnership."

That is already taking place. Nikko Securities, for example, is planning to merge with Ogawa's firm, Salomon Smith Barney. Bankers Trust has a consulting arrangement with Bank of Tokyo-Mitsubishi Trust. Union Bank of Switzerland has taken over some of the operations of Long-Term Credit Bank. In addition, Merrill Lynch, Goldman Sachs, Morgan Stanley, Lehman Brothers, Credit Suisse and other foreign financial institutions have either expanded significantly their presence in Japan or have formed some type of cooperative alliance with Japanese institutions.

"In the past, companies and consumers relied on one bank to provide them with all the financial services they needed. But that is changing rapidly," says Ogawa. "As unfortunate as this current banking mess is, it is acting as a catalyst for change, and it will accelerate the introduction of new technologies and economies of scale that will ultimately benefit the banks, encourage healthy competition and result in new products and services."

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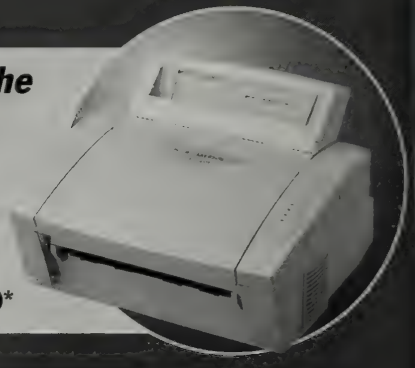

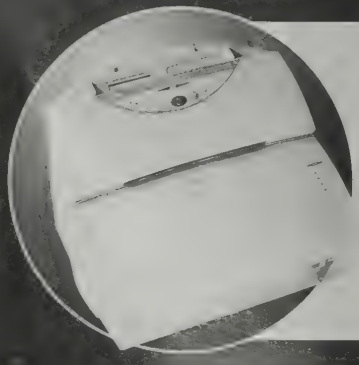

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KATSUHIKO KAWASOE
MITSUBISHI MOTORS CORPORATION

model while generating 10% more power.

"It's true that the fuel economy of cars has much improved in the last two decades," says Mitsubishi Motors President Katsuhiko Kawasoe. "But since many more cars are being added year after year, the net result is increased greenhouse gas emissions. What's needed are revolutionizing technologies that will change the equation dramatically. We believe GDI is one of those technologies."

Mitsubishi Motors's GDI engine, Kawasoe believes, will set fuel cor tion, emissior other ecological standards for th al auto industry years ahead.

The engine has powered company sales GALANT and LEGNUM series sedans, winning th of Japan's Car of the Year in 1996-1997.

Now, the V6 3.5-liter GDI engine is poweri PAJERO and other sports utility vehicles, and a s 3.0-liter engine is being installed in the DIAMANT senger models. To date, GDI engines have installed in 240,000 cars in ten models sold in "The percentage of our gasoline-engine cars, than 1,000-c.c. and powered by GDI engines, wa at the end of 1997 and currently is more than says Kawasoe. "By the year it will be 85% and 100% by 201

"The GDI engine is making a contribution to climate prote and fuel conservation, making engine for the 21st century," sa company's chief executive. "S believe an increasing numb global auto producers will utiliz new technology in their car-m in the future."

The new eco-engine is curr powering the GDI CARISMA and Space Star produced by the pany's Dutch manufacturing su ary, and it is featured in Swe Volvo S40 and V40 models.

Against the Goliaths of the g auto industry, Mitsubishi Mo GDI technology is giving the co ny David-like strength in Euro U.S. and Asian markets.

The new engine is also helpin company's bottom line.

Like most Japanese companies tling increased global compet overseas and a lingering recessic home, Mitsubishi Motors has in mented a vigorous cost-cutting, restructuring management-reform program aimed at lowering head costs, more clearly defining the goals of vidual operational units and generally bolstering company's future profitability.

"I am confident that by pooling our wits and fo ing our efforts on the tasks ahead," Kawasoe ass "we will prevail over our current predicament Mitsubishi Motors will become a company to reckoned with in the 21st century."

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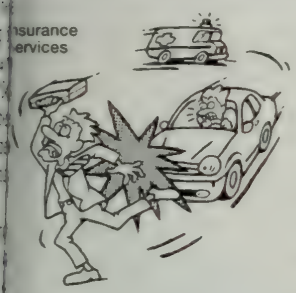
High-quality customer services

Through the years we have enjoyed a reputation for high-quality customer services and sound management in the financial services industry. In recent years, we have introduced "automatic service terminals," established a link with MasterCard, incorporated integrated circuit technology into our cards and installed automated teller machines in post offices throughout Japan. We have been a pioneer in the "smartcard" revolution and are currently working on an IC card that can be used as electronic money.

nsurance ervices



New Business Opportunities From Big Bang

The new competitive opportunities presented by Japan's "Big Bang" financial reforms will allow us to expand the range, scope and quality of our services. Because of changes in Japan's foreign exchange laws, our IC cards provide a cashless, efficient means to settle accounts in more than one currency. We are increasing the number of our cash dispensers and ATMs through tie-ups with other companies and diversifying into the travel, life insurance and general insurance business. We are expanding our business activities to include sales of investment trusts and original insurance products over the counter through the MYCAL Group network.

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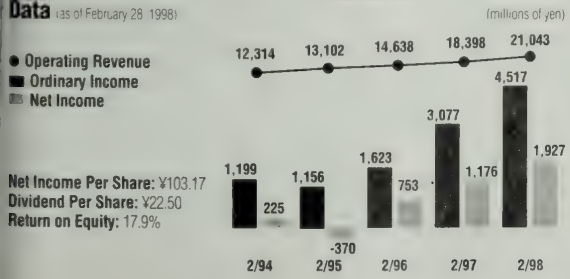
The sheer competitive dynamics of this new age of global financial services is reflected in our vigorous research efforts in leading-edge services and technologies. We are constantly reviewing how we can offer services tailored to customers' daily lives. We are intensifying our research on the latest technologies, particularly in the fields of computer and electronics knowhow so that we can offer ever more convenient services to our customers. We are adding more features to our credit cards, incorporating IC cards into our various services, and strengthening our links with Mondex, a MasterCard company specializing in the field of electronic money.

Through these activities we believe MYCALCARD has tremendous potential for continued growth well into the future.

Headquarters building

Data (as of February 28 1998)

(millions of yen)



Net Income Per Share: ¥103.17
Dividend Per Share: ¥22.50
Return on Equity: 17.9%

MYCALCARD

Date of Establishment: May 25, 1982
Total Assets: ¥105,539 million
Number of Shares Outstanding: 21,289 thousands
Date of Stock-Exchange Listing: July 28, 1998
Markets: Tokyo Stock Exchange (the 2nd Section)
Osaka Stock Exchange (the 2nd Section)
Number of Employees: 551

MYCAL CARD INC.

Address: 1-3-1, Doshomachi, Chuo-ku, Osaka 541-8552, Japan
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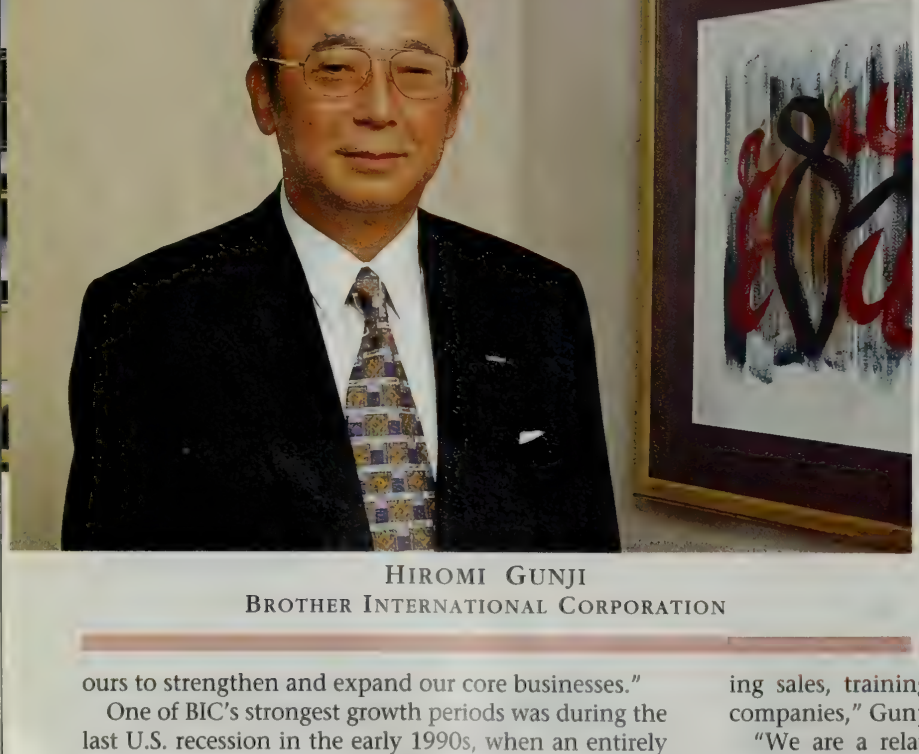
BROTHER

Hiromi Gunji, chairman, president & CEO of Brother International Corp. (BIC), is the kind of imaginative, innovative executive who can find the silver lining in any dark business cloud.

Take the current financial contagion that is sweeping through global emerging markets from Asia to Russia — and pushing even developed economies, like the U.S., toward what some observers fear could be a serious slowdown or even a recession in 1999.

Not to fear, says Gunji. "I don't see a significant slowdown ahead for the U.S.," he says, "but if there is one, we can find opportunities, since many of our products help individuals and companies save time and money and become more efficient. Difficult times often provide new opportunities for companies like ours to strengthen and expand our core businesses."

"We are concentrating our research efforts on adding communications capabilities to our office equipment."



HIROMI GUNJI
BROTHER INTERNATIONAL CORPORATION

One of BIC's strongest growth periods was during the last U.S. recession in the early 1990s, when an entirely new market was established by the relentless corporate restructuring that forced millions of Americans to create new jobs by working at home or setting up small boutique businesses. "Our products are designed for the specific requirements of the business entrepreneur," Gunji says. The small-office and home-office market is currently $15 billion and growing.

This kind of response to what would at first glance seem to be a negative influence on his business is typical of Gunji's management style. He has spent 10 years at the helm of the New Jersey-based BIC, a subsidiary of Japan's Brother Industries, Ltd. that enjoys sales of about $1.2 billion last year.

Despite BIC's past success, Gunji is determined to carve out a niche for his company with new information and communication technologies. "Our future growth depends heavily on our being able to keep pace with the new ideas that are shaping the forms and functions of tomorrow's office equipment," Gunji explains.

Two important steps in this direction were taken at the end of 1997, when BIC purchased two research companies, one in California's Silicon Valley and the other in Israel. The California company, Zapex Technologies, located in Mountain View, is a developer of data compression technology used in MPEG-2 digital encoders and decoders. Zapex Research near Tel Aviv is focusing its energies on developing very large-scale integrated circuit technologies. The Israeli firm is headed by Amos Shani, a former chief engineer of Intel Corp.

Zapex Technologies researchers developed a printed circuit board with new hardware and software features that allow for the real-time transmission of video images through personal computers or other monitoring systems such as a company's in-house broadcasting system. It could be used, for example, to broadcast on-site training to remote locations. "The new technology can be used in a variety of different applications, including improving sales, training and communications systems for companies," Gunji says.

"We are a relatively small company working in a huge, rapidly changing global industry," says Gunji. "If we want to succeed, we must be able to focus on specific markets, move fast and maintain a trim sail. I believe we are ready."

shu uemura
tokyo paris new york

Revolutions don't take holidays: Shu Uemura

ho launched mode make-up in the world of the 60's? Who transformed the conventional isdom of the cosmetics industry through innovative shops in Tokyo and Paris? Who s the first to use deep ocean water for cosmetics? Over the decades, Shu Uemura has t world record after record without pause. "To make women beautiful, I never rest."

INDUSTRIAL BANK OF JAPAN

The difficulties facing Japan's financial system are serious and require resolute action at both the government and corporate levels, but are not as dire as generally believed in the U.S. and Europe, according to the head of one of the country's largest banks.

"There is a lot of misinformation and misunderstanding about the actual nature and extent of the bank bad-loan situation and the health of Japan's financial services industry," says Masao Nishimura, president & CEO of The Industrial Bank of Japan, Ltd. "While the Japanese financial system is experiencing some adjustment pains as it adapts to the new world of financial deregulation," he adds, "it is essentially healthy and in no danger of collapse."

"We are strengthening our capabilities for delivering financial services and increasing our profitability as well as broadening and deepening our operating base."

MASAO NISHIMURA
THE INDUSTRIAL BANK OF JAPAN, LTD.

As for the banking industry's problem of nonperforming loans, Nishimura believes that the major banks are sound and will successfully strengthen their capital bases and be able to compete effectively in global markets, while other banks may even be forced into mergers or alliances with Japanese or foreign institutions to survive. But either way, the bad loans will be written off and financial institutions will emerge with stronger balance sheets.

"The Big Bang financial deregulation program has created very difficult circumstances for all Japanese banks, and some will adjust better to the changing circumstances than others," Nishimura says. "Some banks will have to leave the industry, while others will pursue mergers or alliances with not only other Japanese banks but also foreign institutions."

In short, in order to survive, Japanese banks will have to adopt comprehensive new strategies to compete effectively at home and overseas, the IBJ executive beli

For its part, IBJ is in the midst of a major restru ing process intended to streamline its managemen tem, improve and expand its customer services meet its goal of becoming a universal wholesale with a strong global presence. "Greater emphasis i being placed on creating value for our shareholo Nishimura says.

Significant steps in direction were take 1998, when IBJ fo alliances with No Securities, the country' gest broker and a fo competitor, and Dai Life, Japan's numbe life insurance comp The Nomura alliance volves setting up overseas financial pro company, based in Lon that will be able to com on a par with foreign se ties firms in Japan's do tic market, offering a va of derivatives.

By strengthening its ty relationship and l ness cooperation Dai-ichi Life, IBJ will only bolster its bal sheet but also be abl access the insurer's 2 branch offices and 10 lion policyholders. will be a major boos IBJ's efforts to establi strong retail network in future. The two institut also plan to cooperat syndicated finance amalgamate their as management subsidiari

"You have to remen that in terms of magnitu Japan's Big Bang is m bigger and far more c prehensive than the Bang reforms carried by Britain in the late 1980s," Nishimura says. "Jap reforms are not limited to just the securities indu but focus on banks, life insurance and public finan institutions as well.

"So the challenges are much greater," he expla "But so are the opportunities."

RICOH

Masamitsu Sakurai is president of Ricoh Company, Ltd., one of the world's leading manufacturers of office equipment. As former chief technologist at Ricoh, he understands the need for open architectures to tame the technical jungle and increase customer satisfaction. As president, he intends to extend this quest to Ricoh's business practices.

For a long time these companies were content to march to different drummers," says Sakurai, referring to his subject. "They didn't always comply with general business standards. As a result, shareholders tended to take a backseat in the general scheme of things. The sooner this changes, the better."

"For Ricoh to call for open standards in technology and not adapt similar standards in business would be sheer hypocrisy. The least we can do as a company is to be consistent across the board."

For decades now, Ricoh has prided itself on its achievements in customer satisfaction. In Japan, the company is known as CS No.1, a very hard-earned distinction. "You see," explains Sakurai, "at Ricoh, Customer Satisfaction is not just a concept, it's an obsession. I think it seems to me that if we can devote all our time to satisfying our users, perhaps we should give similar attention to our valued shareholders. So from now on, the needs of our shareholders will have equal billing with those of our customers." Corporate management from the viewpoint of shareholders is now one of the principles guiding Ricoh's new management plan, which will be implemented this April.

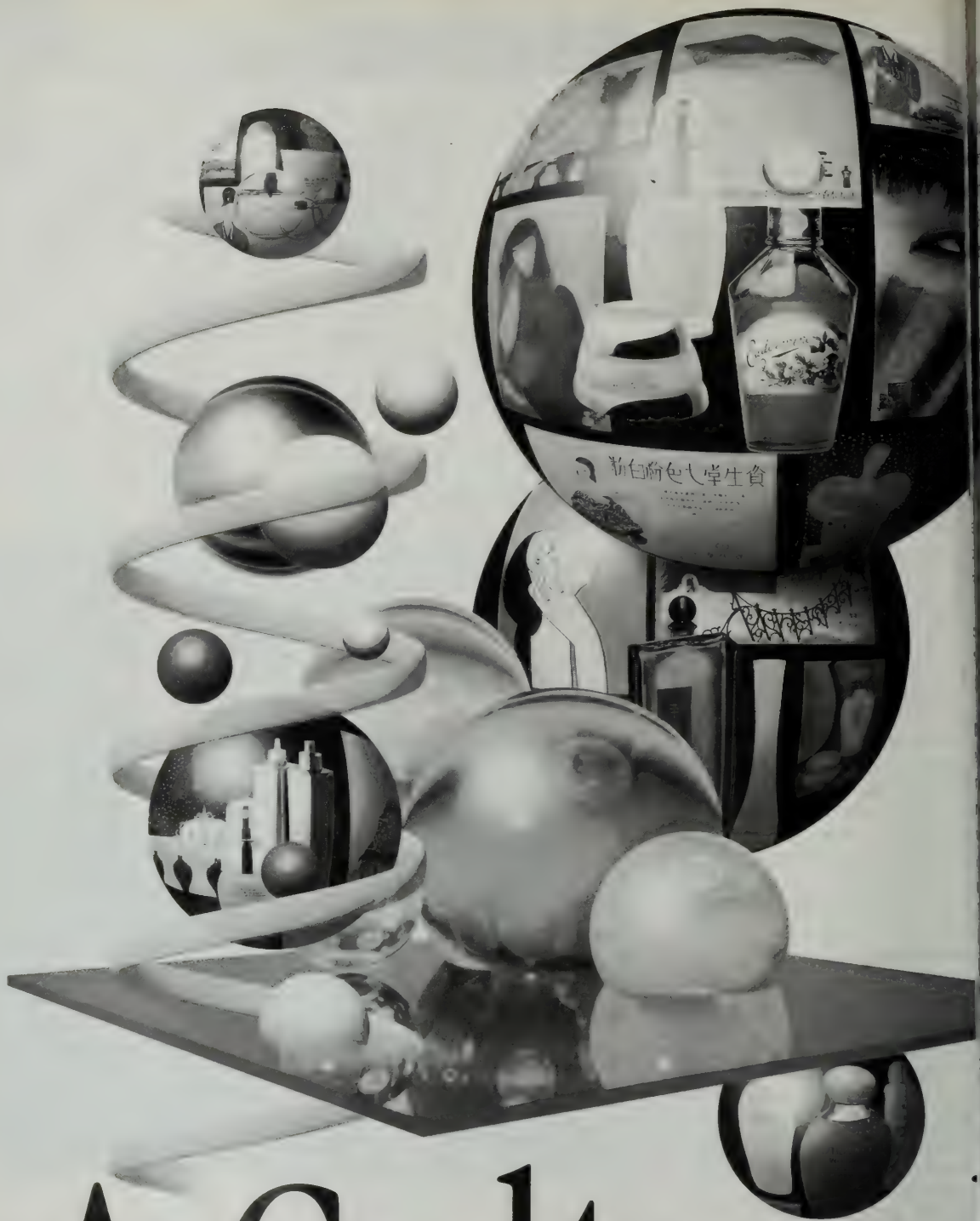
On the technology side, Sakurai stresses the importance of an appliance-like approach to product development. When asked about this, Sakurai points to a glaring irony at the heart of the digital revolution. According to him, the world is divided into two categories of users: the information rich and the information poor; those with high-tech skills and those who are somehow put down by the technology. "Our goal is quite simply to eliminate the gap between the two groups," says Sakurai.

An excellent communicator, Sakurai explains his thoughts in clear, powerful phrases: "You shouldn't need an engineering degree to operate office machinery. Yet so many 'smart' machines, such as computers and the like, end up making us feel 'dumb' and frustrated. The market points in one direction: simplicity. Simplicity of installation, simplicity of use, maintenance and upgrading. The successful companies of tomorrow understand this and devote all their energies to making simple solutions a reality."

For Ricoh, the future starts in Silicon Valley, where the company runs a high-powered research center, focusing on network-related product planning, software development and venture investments. "Ricoh Silicon Valley is the driving force behind our efforts to provide appliance solutions to our customers across the USA and eventually around the world."

Buoyed by Ricoh's recent successes in the digital copier field, notably with the best-selling Aficio series, Sakurai looks confidently toward the future: "Our vast experience in digital office automation and our core technologies are the raw materials from which we intend to create a long line of office appliances that will assure our place in the 21st century."

MASAMITSU SAKURAI
RICOH COMPANY, LTD.



A Cultura

…s familiar form, DNA is associated with biological …dity. But another form may also exist, as a …ual" genetic legacy that transmits cultural …ritance from mind to mind over generations. …r Shiseido, cultural DNA is the essence of a unique …-year corporate tradition that intertwines art and …nce. These diverse "genes" have made Shiseido a …ier in prestige products for beauty and wellbeing.

…ectic inspiration. Shiseido's signature *Eudermine* …n suggests a bloodline of cultural continuity. Over a …-year history, its ruby-red color has remained virtually …hanged through many packaging transformations. …ther creations evoke the DNA of beauty and style through the …s. Shiseido packaging reveals its debt to Greek *amphorae*, …que glassware, and the lacquered cosmetic kits of medieval …an. The soothing aromatic scents of *Shiseido Relaxing …grance* can be traced to oriental origins. Shiseido ads and …mmercials show the influence of many artistic periods. …he richness of these creative expressions raises a crucial …stion: In a new era of simple fashions and shifting …tunes, how can Shiseido preserve and promote its legacy …beauty and style?

…ergized organization. This provocative query has …eady found an answer. Anticipating the need for optimum …xibility, Shiseido has gradually shifted towards a …centralized management. The outcome is a cooperative …iance of independent companies in Asia, the Americas, and …rope, which derives energy from its collective sense of the …iseido heritage.

…he company's *CyberIsland* website provides a revealing …mpse of multicultural diversity in action. The exceptional …ature is a choice of five languages, each linked to a regional …iseido website that features products and activities shaped … the tastes and desires of its consumers.

…merging innovation. To create distinctive products …at suit individual needs as well as multicultural markets, …iseido relies on its dual "genes" of scientific innovation and …esthetic sensibility. The result is advanced skin care combining practical effectiveness with the utmost sensory satisfaction.

One such global product is *Shiseido Benefiance*, a technological innovation in "total luxury" for mature skin. Another is the *Bio-Performance* line of intensive treatments for enhanced skin tone and texture.

Among the most promising new global products is Shiseido *Hair Energizing Complex*, which takes a revolutionary approach to universal concerns about healthy hair appearance. This applies the most advanced skin science in maintaining an optimal balance of hair and scalp condition.

Enduring need. These products reflect a desire to help people look and feel their best at any age. Shiseido pursues this goal as it strives to become the premier "skin-care house" of the new millennium. The company also draws on its unique beauty culture as it seeks to satisfy consumers of tomorrow.

"Admiration for beautiful things is common to people of many periods," says the president of Shiseido, Akira Gemma. "Styles of presentation change, but the impulse is timeless. Shiseido will continue to serve this human need for beauty, and pass it on to the future."

New Shiseido *Hair Energizing Complex* promotes high-performance hair and scalp care that goes to the essence of hair volume and vitality.

Coriander extract is a natural ingredient of *Hair Energizing Complex*. Another stimulating substance, Tetracosamine, is a research breakthrough.

…DNA

SHISEIDO

Visit Shiseido *CyberIsland* website: www.shiseido.co.jp

TOSHIBA AMERICA

As a global electronics and engineering powerhouse, Toshiba has a history of breaking new ground and leading the industries in which it competes. In every facet of its business, the name Toshiba is synonymous with innovation and quality.

The company's products are recognized throughout the industry for pushing the technology envelope — from handheld PCs and the industry's smallest and lightest PC Card digital camera, to a network-compatible copier that enables printing and faxing.

"We're committed to delivering a world-class experience to our customers and partners in all aspects of their relationship with us."

STEVE ROSS
TOSHIBA AMERICA INFORMATION SYSTEMS, INC.

In the United States, Toshiba America Information Systems has evolved from the world's leading notebook supplier into one of the industry's top PC providers. With the success of its innovative desktops and recent introduction of PC servers in the United States, Toshiba has embarked on a mission to become a top-five PC manufacturer by the year 2000.

Leading the charge is Steve Ross, who was appointed general manager of Toshiba's Computer Sy Division in August 1998, after serving as presid corporate marketing at the reseller division of In one of America's largest resellers. Over the las months, Ross has moved quickly to build upon the book leader's number one position in the ind becoming an even stronger business partner customers, vendors and strategic partners.

As a former customer and distributor of To products, Ross brings a unique perspective to the pany he is charged with le into the 21st century. "H worked with the nation' business leaders, other manufacturers, distributors suppliers, I've had insight the 'best practices' of leading companies," says Ross.

One of his key strategies is to bring these best pra to Toshiba, building upon current partnership and ing Toshiba and its customers achieve mutual su Another key strategy is to develop strategic relation with customers and vendors, an element Ross belie vital to the global success of IT companies.

Indeed, Toshiba's business partners have al experienced the benefit of Toshiba's intense focu reengineering its supply chain and build-to- capabilities. This focus gives the company unparal efficiencies and flexibility in its ability to deliver right products at the right time. "This couldn't happened without strong vendor and customer rela ships," says Ross.

Toshiba is also expanding its best practices appr in three other key areas: building a stronger service support organization; strengthening its channel rela ships; and providing global capabilities to better se corporate customers.

"We're committed to delivering a world-class ex ence to our customers and partners in all aspec their relationship with us; whether it's a fast resp from technical support, improved product availab for our resellers or global support for the enterpr says Ross.

And despite the downturn in the Asian econc Toshiba has remained a strong and competitive forc the United States and has bold plans for the fu "With the globalization of the economy and strength of the Internet as a communications veh you'll see us take a much more global approach to business. We'll do this by using best practices and tegic relationships to strengthen and enhance influence as a worldwide PC manufacturer. With unparalleled strength in engineering, innova products and worldwide presence, the opportunities Toshiba are unlimited," Ross adds.

Mitsubishi Galant. totally redesigned. nicely equipped at $17,990. available 195 horsepower.*

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*GALANT ES-V6 shown 195 hp. CA/NLEV emissions 190 hp. MSRP $19,990. Plus $435 destination/handling ($560 Alaska). Excludes tax, title, license, registration fee, regionally required equipment, dealer options and charges. Vehicle availability may vary. Actual prices set by retailers.

IMPERIAL HOTEL

Asked recently about the difference between being president and executive vice-president of Japan's most prestigious hotel, Hiroshi Fujii pauses reflectively before answering. "Strenuous," he replies. "Very strenuous."

Before he was appointed president of Imperial Hotel, Ltd. in June 1997, Fujii served as the organization's executive vice-president and the senior executive in charge of marketing the Imperial name and reputation in Japan and worldwide. Heavy responsibilities by any account.

But being president carries a heavier load, he says. "You can't compare the mental pressures of the two jobs," he adds. "When you are president, you are the final link in the chain of command. You are responsible for maintaining the wholesome growth of the company."

"You can't run a hotel business worrying about exchange rates. You have to keep your focus on improving the quality of guest services and maintaining profitability."

HIROSHI FUJII
IMPERIAL HOTEL, LTD.

Given the current global financial and economic climate, — that's not an easy job even for a hotel as famous and successful as the Imperial has been during its 108-year history.

The number of international visitors has increased during the past year in response to the 30% to 40% drop in the value of the yen against the dollar, w makes rooms cheaper in dollar terms. But Fujii that's not enough to create windfall profits for a that depends upon local business and pleasure t ers as much as it does upon international guests.

"It is true that we have some of the lowest rates in dollar terms among major international ry hotels," says Fujii, "but the number of guests Asia has been drastically reduced by conditions i region. And nearly two-thirds of our business c from Japanese travelers who also been affected by the con ing recession in Japan."

But because Imperial's cust base includes high-profile bus and executive travelers, it been less affected than hotels by the recent slowdow the global economy.

To keep its image alive in minds of international cus ers, the hotel regularly sends and marketing staff on an "caravan tours" to places New York, Los Angeles, Lor and other global centers to s the company flag. In addit Imperial is picking up new l ness as a result of the Inte and, most important, it is pro ing new and improved service maintain and expand its guest

Fujii adds that the hotel introduced new and impro staff-training procedures to fa iarize valet, room service, ho cleaning, front desk, concie and bar and restaurant staff m bers with the details and consi ations they need to do their efficiently and satisfactorily.

Imperial, which also operates successful Imperial Hotel, O and the Hotel Imperial Bali in Ir nesia, is strengthening its relati with associated hotel and tr facilities throughout Japan, providing them with c tracted management services and assistance.

"We have over the years accumulated invalua management experience in the hotel business, wh we are happy to share with others," Fujii says. "I reflected in our brand name, Imperial Hotel, whic our most valuable asset."

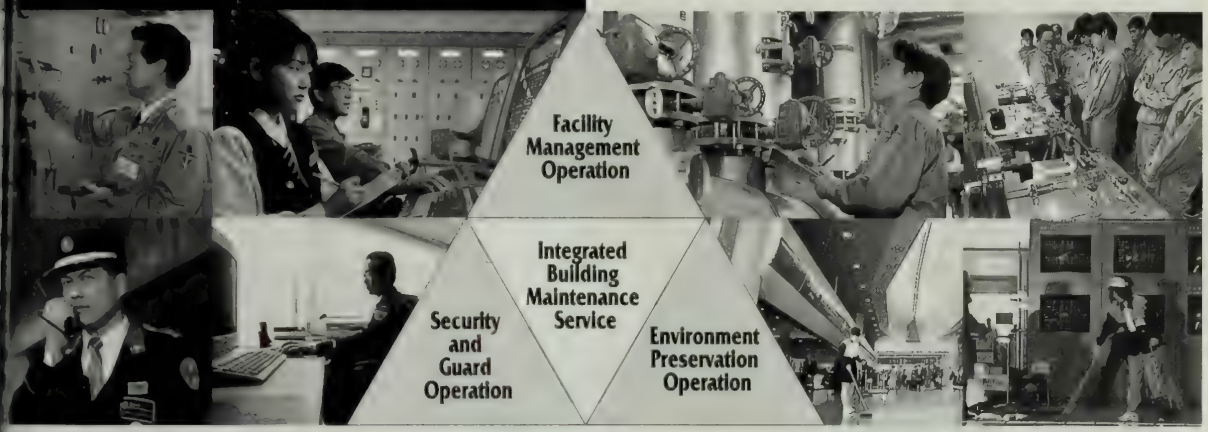
We keep buildings healthy, clean and secure.

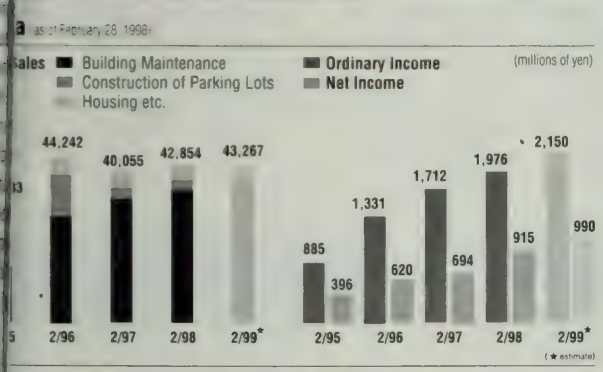
Keeping buildings clean, secure and in good condition is our specialty. We have been doing this for two decades and in recent years expanded our services to include consulting with architects and building contractors before construction begins because we have learned from experience that maintenance costs over the life of a building can amount to more than three times the original cost of the structures. That is why our services are steadily growing.

Member of the MYCAL Group

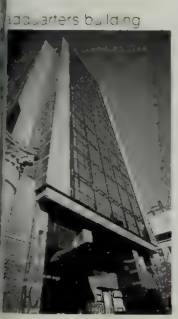
Established in 1973, Japan Maintenance was formed essentially to provide maintenance and cleaning services to fellow members of the MYCAL Group, an association of more than 100 companies involved in everything from department stores and supermarket chains to health clubs, credit services and entertainment/cinema complexes. In recent years, we have expanded outside the group and currently about 39% of our annual revenues come from non-MYCAL Group companies. Our customers include Kansai International Airport, Senba Center Building, Osaka Dome, Osaka Symphony Hall, and Casio Co. Head Office Building.

MYCAL





Net Income Per Share: ¥44.24
Dividend Per Share: ¥13.50
Return on Equity: 8.0%
Date of Establishment: April, 1973
Total Assets: ¥19,662 million
Number of Shares Outstanding: 20,700 thousands
Date of Stock-Exchange Listing: September, 1995
Markets: Osaka Stock Exchange (the 2nd Section)
Number of Employees: 2,446 (including part-timers)



japan maintenance

Address: Minami-senba Heart Bldg., 2-3-2, Minami-senba, Chuo-ku, Osaka 542-0081, Japan
Telephone: 06-6260-5629

Maintaining a way of life

For a building or any structure, maintenance is not a service but a way of life. Keeping a building healthy requires constant care and supervision which will not only keep the building in good condition but extend its life cycle. We utilize the latest technologies in facility maintenance and materials and provide high quality supervision by highly trained staff.

Protecting valuable assets

A building is a valuable asset that needs to be secure not only for its occupants but for the general public who visit it. In addition to highly trained security personnel, we provide the best advice about how to keep a building safe and secure for its tenants and visitors and anticipate problems before they happen. From securing parking lots and visitors/shopping areas to protecting valuable equipment and store fronts, we provide comprehensive, round-the-clock supervision to ensure the security and well-being of customers, store staff and the building.

Concern for the environment

Because they are a vital part of our environment, we involve ourselves in all aspects of buildings, from the kind of materials used in their construction to their design. A clean commercial environment demands clean, well-maintained buildings. As a result, we are concerned about what's inside a building and what's around it. Our researchers and design consultants maintain a large database of information about materials and construction techniques that enable us to provide the best advice possible to our clients about new and better ways to keep buildings friendly and compatible with their environment.

KIKKOMAN: Defining good taste.

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Production Facilities : Japan, U.S.A., The Netherlands, Singapore and Taiwan
Subsidiaries : U.S.A., Canada, F.R. Germany, Hong Kong, Australia and Singapore

KIKKOMAN

SHU UEMURA

hu Uemura is not — and never has been — your typical businessman.

True, over 33 years he has pioneered a small cosmetics business into a large, unique, global rise, with 97 stores in Japan and 76 overseas enerate some $140 million in sales annually.

also true that Uemura relies heavily on science l nature — for the development of his products, ally those designed to help prevent aging. And, nany chief executives, he devotes considerable — and money — to pushing his company's ch labs to find new ways of enhancing feminine y.

that is not the e story behind Shu ura the man, or his pany, Shu Uemura netics Inc. Behind hriving global enter- stands a man who is much an aesthete hard-driving entrepre- a lover of beauty and human grace, as well devotee of corporate efficiency and profit; an , in addition to a businessman.

"Cosmetics in general were conceived as something to cover up skin and facial flaws. Our approach was to enhance the skin's natural beauty."

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In recent years, Uemura has placed emphasis on "globalization" by establishing major design and marketing operations outside Japan in Hong Kong, Taiwan, London, New York and Paris where he can meld the latest Asian and Western influences into his product line.

Beyond the aesthetic aspects of his designer cosmetics, a big part of Uemura's success is the use of a fundamental natural resource — water — in the manufacture of his cosmetics.

"About 70% of the human body is water," he explains. "Water is important to health and an important ingredient in products we are designing to help slow the aging process," he says.

SHU UEMURA
SHU UEMURA COSMETICS INC.

For example, Uemura's seaside manufacturing plant on the southern island of Shikoku also carries out research based on water extracted from the deep sea.

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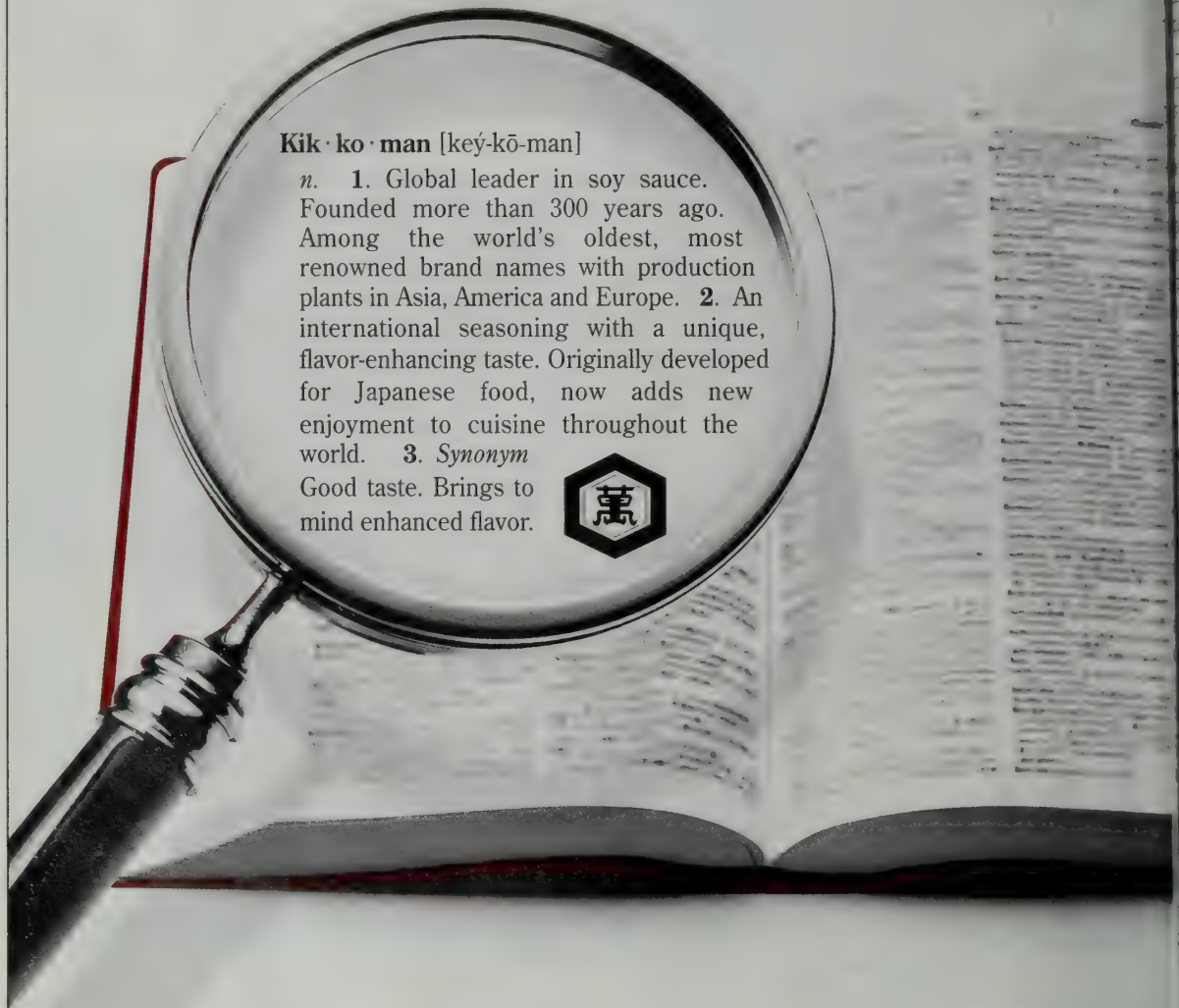

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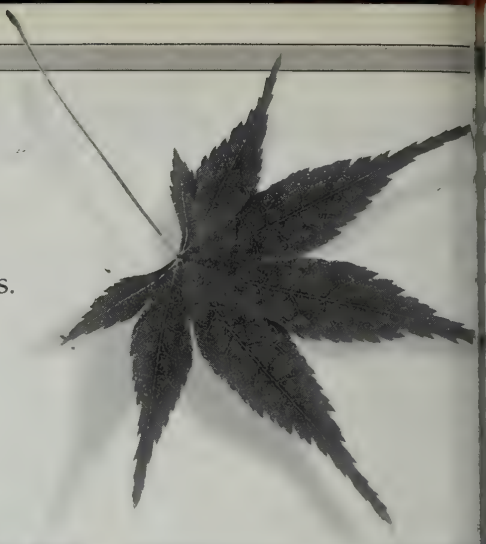
Environmental Considerations

Today environmental issues hold the world's attention and call for approaches from a global perspective and considerations that take into account future generations. In line with such growing environmental concerns, Nippon Steel is striving to further contribute to society through enhanced endeavors to protect the global environment.

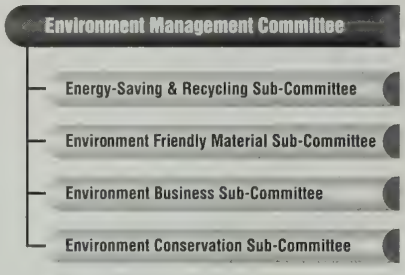


Environment Management Committee Organized

Nippon Steel has developed production systems boasting the world's lowest environmental impact and the world's highest energy efficiency through the implementation of exhaustive environmental measures and drastic energy-saving steps. It is also continuing its efforts toward the development of high-performance steel materials conducive to alleviating environmental burdens during their application stage and waste-melting and other environment-protective plants.

The present environmental concerns are not confined to such public hazards as air and water pollution, but are expanding to include the issues exemplified by the curbing of global warming and the need for a recycling-oriented society. In the consumers' selection of products to purchase and evaluation of product manufacturers, environmental considerations are becoming important judgment criteria, necessitating the adoption of environment-conscious management.

Fully aware of this need, Nippon Steel has established the Environment Management Committee. It intends to concentrate on disseminating environment-related information and task-consciousness among the corporation's staff beyond each division. Its objective is not only to further the reuse of steel but also to accurately respond to emerging needs — "green procurement" by users, reduction of burden on the environment in designing and manufacturing steel materials based on life-cycle assessment and development of new environment-related businesses.



Greenery-blessed steelworks

Environment-friendly Steelmaking Operations

• Full Concatenation of Finish-rolling at Hot-rolling Mill

Nippon Steel has long been engaged in energy conservation through the extensive concatenation of various steelmaking processes. The most advanced process concatenation has recently been realized at Nippon Steel's Oita Works. In April 1998, an advanced hot-rolling system — continuous finish-rolling by means of laser welding — was put into practice. It has enabled reduction of energy consumption in the production process. Reduced energy consumption results in less emission of CO_2 and NOx, and thus such proce concatenation is in the limelight fr the perspective of conserving the global environment.

Meanwhile, Nippon Steel is fast approaching the technological deve opment of such systems as a next-generation coke oven permitting a 20% energy saving over convention coke ovens and a direct iron ore smelting-reduction process to repla the present blast- furnace ironmaki process.

• ISO14001 Certification Obtained

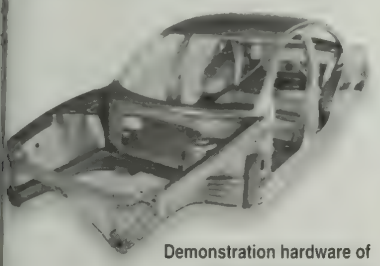
In April 1998, Nippon Steel's Kimit Works obtained certification of ISO14001, an international standar for environmental management, the second such certification in Nippon Steel after its Nagoya Works. Under the slogan of "A Green and Sun-blessed Steelworks" and in line wit environmental policies shaped accordingly, Kimitsu Works is engage in production with due regard to environmental protection.

Products and Plants Conducive to Environmental Protection

High-strength Steel

Presently, high-performance steel products are in the spotlight as a material conducive to saving energy. To illustrate: Nippon Steel-developed high-strength steel materials offer diverse benefits. The use of high-strength steel helps to improve the performance of steel user's end products — reduction of the weight of those products not only improves energy efficiency in their application stage but also in their production stage due to reduced steel requirement.

Nippon Steel participated in the international collaborative research project of the ULSAB (UltraLight Steel Auto Body) Consortium by the International Iron and Steel Institute. The ULSAB project, through the use of high-strength steel sheets, aims at achieving a 25% reduction in body mass, while securing maximum body rigidity and collision safety. A 25% body mass reduction means not only the saving of resources by the less amount of steel used, but also lower vehicle energy consumption and less exhaust gas emission. Expectations are high for the development of such ultralight steel automobile body.



Demonstration hardware of ULSAB body-in-white

The Akashi Kaikyo Bridge (3,911 m in overall length), the world's longest suspension bridge, opened to traffic in 1998. Nippon Steel-developed 180 kgf/mm^2 high-strength steel wire was used for the bridge's main cables. Initially, the bridge was designed to be constructed with double cables on each side, but the application of this high-strength steel wire allowed bridge construction with a single cable per side, thus greatly reducing the steel requirement. The end result was a huge saving in the use of not only steel materials but also concrete.

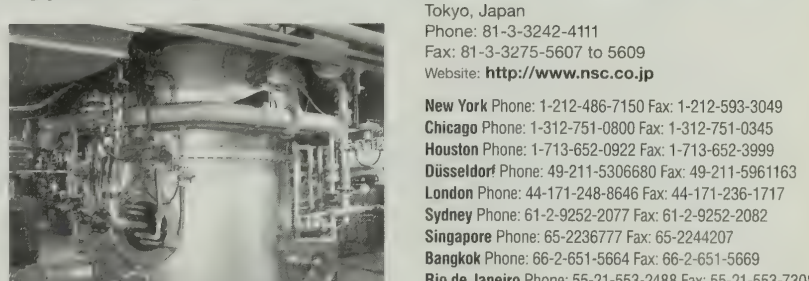
Akashi Kaikyo Bridge, the world's longest

• Waste Treatment Plants

Nippon Steel has long been contributing toward effective utilization of resources. Among such contributions is the conversion of steelmaking by-products into usable resources (current conversion rate: 95%).

Among the innovative plants Nippon Steel has already put on the market is the direct melting system for waste recycling which, based on the concept of "converting waste treatment plants to resources producing plants," is designed to melt together various wastes, including incombustibles that cannot be incinerated, and produce such resources as slag and metals. Another is the waste plastic liquefaction plant which recycles waste plastics into high-grade fuel.

Through these and other advanced technologies, Nippon Steel intends to contribute its share to the development of a future social infrastructure of the resources-recycling type.



Waste-melting furnace

Dense woodland at Oita Works

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TOHOKU ECONOMIC FEDERATION

"With the recent extension of Japan's Shinkansen (bullet train) service to the region, expansion and upgrading of the area's highway network, Tohoku is within easy access of the Tokyo metropolitan area."

Highly competitive land prices, improved infrastructure and a quality labor force, not to mention an abundance of natural amenities, are making the Tohoku region of northeastern Japan a prized destination for Japanese and foreign companies interested in locating or expanding their operations in Japan, according to Teruyuki Akema, chairman of the Tohoku Economic Federation.

"Our region was recently cited in a nationwide survey as one of the 'most livable areas' of Japan," Akema says. "We have always had something special to offer, and we represent a kind of new frontier for new or expanding businesses in Japan."

TERUYUKI AKEMA
TOHOKU ECONOMIC FEDERATION
(TOHOKU ELECTRIC POWER CO., INC.)

Akema, who is also chairman of Tohoku Electric Power, one of the largest electricity suppliers in Japan covering seven prefectures of the Tohoku area, takes pride in noting that his region was designated as a possible site for the relocation of the national government, now headquartered in Tokyo. "It reflects confidence in the future of the region," he says about Tohoku's candidacy. "We continue to consult with national authorities and are working hard to make this project a reality in the future."

Geographically, the Tohoku district occupies the northeastern
of the main
of Japan. W
population o
million people
region boas
gross dom
product (GDP) equivalent in the economic scale t
of countries like Korea and Australia.

As the next century approaches, Tohoku is c
ered something of a new area for business develop
and expansion, as well as living. "There are high e
tations that we will become a new frontier of Ja
says Akema. "Thus we have a great need for
talented people and businesses from all over the
to help build our community of the future."

With the recent extension of Japan's Shinkansen
let train) service to the region, ex
sion and upgrading of the a
highway network, "our access t
Tokyo metropolitan area has
much improved," the electric u
executive adds. In addition, the e
lishment of new internationa
routes that will make the region
more accessible worldwide are u
way. Tohoku boasts three internat
al airports, 12 international air r
and six international seaports.

Backed by this solid infrastruct
the Tohoku region also offers h
level educational and research reso
es, including the internation
recognized Tohoku University
its high standard of science and t
nology. The region is also hom
the Tohoku Intelligent Cosmos P
a triangular cooperative pro
involving industry, university
government sectors that are stri
to turn the area into a global infor
tion and technology center. Some
research firms already have sta
their operations here under this pl

Tohoku has other advantages
well. "Our region offers much cheaper land compa
with Tokyo, Osaka and other metropolitan areas, no
mention lower operational costs," Akema says.

"We would like to encourage everyone to v
our homeland, where they will discover a kind
warmhearted people living in a region blessed w
abundant natural resources and a beautiful physi
environment," says Akema. "We sincerely hope t
you can join with us in building a growing, dyna
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HOTEL NEW OTANI

More often than not, the great international hotels of the world reflect the culture of their location and bear the imprint of their owners. Nowhere is this more true than the Hotel New Otani, a leading Tokyo luxury hotel.

The New Otani's roots go deep into Japanese history to three centuries ago, when the hotel's location served as the garrison site for the Shogun's Guard Division. The hotel is a symbol of the subtle cultural differences between East and West and also acknowledges modern-day environmental concerns.

Whether it's the deep bows from staff members as you walk through the hotel's lobby, the Hiroshige wall tiles of guest bathrooms, or the Oriental enchantment of one of Tokyo's most beautiful Japanese-style gardens, the feeling of "Japanese" permeates the atmosphere, and guests know without question they are in Japan, staying in a Japanese hotel.

At the same time, management's concerns about such environmental problems as greenhouse gases are reflected in the hotel's dedication to conserving natural resources through state-of-the-art energy-saving measures such as ultra-low temperature ice storage and steam accumulators, which in their own way add to the comfort of a guest's stay.

"The experience of a guest in any hotel is a cumulative one," says New Otani President Kazuhiko Otani. "It is not limited to just one thing such as the quality of valet services or decorations of a guest room," he explains. "It is the sum of a guest's total experience during his or her stay. So, as an owner, you must be concerned about every aspect of your operations from the cultural atmosphere to energy costs."

"If a company can recycle 20% of its waste, it gets high grades. But we have achieved a 27.7% recycling level and will push that to 50% by March 1999."

KAZUHIKO OTANI
THE NEW OTANI, CO., LTD.

By focusing on such matters during his 11 ye president, Kazuhiko Otani, the third generati Otanis to run the family's hotel business, has lished a reputation for excellence and supervisior has made his hotel a home-away-from-home for national guests and world leaders.

While his grandfather founded the hotel in just prior to the T Olympics, and his f is remembered for ra the New Otani Tow 1974, which more doubled the hotel's c ity to 1,600 rooms turned it into a n player in the global business, Kazuhiko made his statemen 1991 with the cons tion of the New Garden Court, a h tech 24-hour busi office center. He can be credited with gui the New Otani Gro expansion of its netw of hotels and affili which now number 1 Japan and four over with the hotels in O and Makuhari u direct management.

"Culture is very im tant to us," says Ot who enjoys studying cient Japanese calligra "I've learned a lot f visiting other internat al hotels overseas translated that exp ence into a Japanese tural context."

Environmental pro tion is of equal conc For example, Otani incorporated an based heat-exchange tem for his hotel t utilizes off-peak electrical power to make ice o night, which is then used to chill water for h needs during the day.

Otani's hotel has received international recognit and praise for its recycling efforts. "All of this is sim a reflection of our genuine concern for the envir ment," Otani says.

In March 1992, Japan ceased to be an island.

The world is indeed changing dramatically, and so is Japan. Not surprisingly, the legendary American business magazine that has been challenging conventional thinking for many decades, has been making waves in Japan ever since a Japanese language edition, under license, was launched by Gyosei Corporation in March 1992. Forbes Nihonban.

Uniquely incisive and forthright in true Forbes' tradition,and with a distinct international perspective, Forbes Nihonban has become Japan's window to an increasingly borderless world. Which is why, when it comes to g1obal lnformation and insight, the country's most powerful leaders in industry and government, turn to Forbes Nihonban. Month after month.

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Up From the Ashes: Japan's Economy And Stock Market May See a Phoenix-Like Recovery

For most outside observers, the state of the Japanese economy seems like a good-news/bad-news joke.

The good news is that there is light at the end of the tunnel. But the bad news is that the tunnel is getting longer.

Most Western economic forecasts for the next two years see continued economic decline, although with a slackening pace and a recovery possibly starting in the year 2000 or 2001. Reforms are being implemented, they say, but not at a pace quick enough to give short-term relief to the depressed economy and lackluster stock market.

For example, Chris Calderwood, chief economist with Jardine Fleming Securities (Asia) Ltd., predicts Japan's economy will contract by a sharp 2.9% in calendar 1998. While this contraction will continue in 1999, he says, it will be less severe, with a decline of only 1%. And by the year 2000, Calderwood affirms, Japan's economy should return to positive growth with a recovery of 1.2% or more.

That's conditional, of course, on Japanese authorities resolving the banking industry's bad-loan mess, and on finding an effective way to stimulate corporate and consumer spending and supply more money to capital-starved industries, especially small and medium-size companies that are the backbone of Japanese industry and the economy.

"When the recovery comes, it will be corporate-led, not consumer-led, as the government hopes," says Calderwood. "Despite everything the government has done to try to stimulate consumer demand, the fa that there is no 'feel-good' factor at work. M Japanese consumers are nervous about their future, which is linked to that of their country's, continue to save — not spend — money."

CHRIS CALDERWOOD GILES OCKENDEN
JARDINE FLEMING SECURITIES (ASIA) LIMITED

"Increased spending on plants and equipment corporations will help revive confidence, but it is to the corporate sector to show the way," the ecor mist says.

Within two years, Calderwood sees the corporate s tor's squeeze on wages moderating and a modest red tion in savings rates from their past "hysterical pea With the end of wage tightening, this would suppor modest growth in consumption. But more importa the corporate sector will increase capital spendi although it may be small compared to past levels, a will shrink the contribution of capital spending to t economy to 14%, a historical low by Japanese sta

From then on, companies would start to increase pending on plants and equipment.

ore deregulation in the economy will encourapital spending to rise and we may see the early of a pretty sharp recovery," says Calderwood. he past few years, there has been a false quest dict when the consumer-led recovery will hap-There has never been a satisfactory explanation y consumer spending will drive Japan's recovt never has and it never will."

e more severe Japan's recession becomes, he rea- the more dependent it e on the corporate sec- r recovery.

ch a trend naturally d bode well for those panies that have success- undergone restructuring their share prices on the market, according to erwood's colleague, Giles nden, Jardine Fleming's strategist.

ckenden believes that s of a genuine recovery first show up in the market, where shares of y of Japan's top-tier com- es are at low levels. The chmark Nikkei-225 index ecent months has been ding at the 13,000 to 00 level, 60% to 70% w its historic 1989 high.

he downward trend in the ket will continue, he eves, with prices of shares pping 15% — and in some es as much as 40% — low- efore they begin to stir like the storied phoenix l rise from the ashes of collapse to a new era of sperity.

he Nikkei index, he warns, could fall to as low as 000, which is the theme of his recent report. "Buy t phoenix: Nikkei 225 in ashes: to 10,000."

n Ockenden's view, the volatility in the Tokyo mar- is symptomatic of a crisis that is affecting all global rkets, especially those in emerging economies.

The good news, he says, is that "the long-term outk for investment in Japan is exciting."

But before that occurs, Ockenden says Japan will ve to endure more corporate failures, downward visions in economic and earnings growth, and a contraction in global price/earnings ratios. "Any recapitalization of Japanese banks without proper bankruptcies and a reduction in [banking-sector] capacity is meaningless," he adds, and "will only delay the inevitable restructuring of the manufacturing sector and the clearing away of all excess debt.

"Bankruptcies are a necessary evil before things can get better," he says. Bad loans need to be recognized. "Many Japanese construction companies need to go bust so the remaining ones can make some money. The same for the steel industry. We need to see a process of capacity reduction through bankruptcies. What Japan needs is a hard landing.

"We expect the domestic and international crisis to have a powerfully liberating effect on many major companies in Japan," Ockenden adds. "As every company fights for survival in a domestic economy in rapid contraction, the gloves will come off. We expect to see major restructuring initiated by a growing band of companies. The process will gain momentum and lead to much higher unemployment but also to higher returns for stockholders. A total market return on investment of 10% to 12% is conceivable on a five-year view with some companies doing much better," Ockenden concludes.

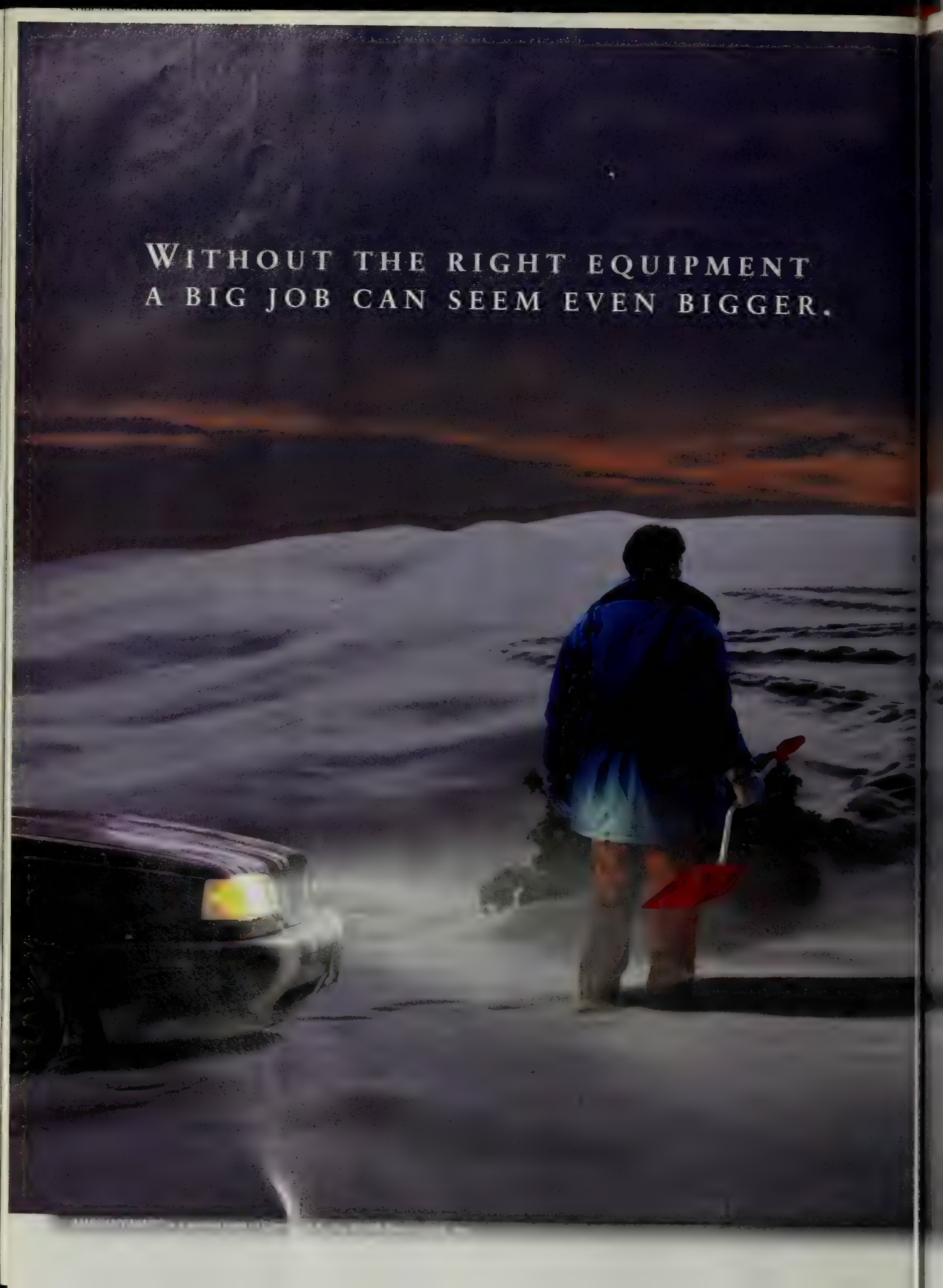
That would be good news indeed for investors and Japanese management alike.

"The depressed phase of stock prices and investment sentiment offers an excellent time for long-term institutional, corporate and individual investors to build stakes in the winning companies of a reforming Japan."

Forecast for the Japanese economy, 1998 ~ 2000 [% Year on Year]

	1998	1999	2000
Real GDP	-2.9	-1.0	1.2
Private Consumption	-2.0	-1.5	1.0
Private P&E Investment	-11.1	-7.6	4.6
Government Investment	-0.8	7.9	-2.3
Nominal GDP	-2.5	-1.5	1.8
¥/$ Average	125	125	125
Industrial Production	-7.6	-5.9	1.9
Wholesale Prices	-1.5	-3.0	-1.0
Consumer Prices	0.5	-0.8	-0.5
Unemployment Rate (Annual)	4.3	5.5	5.7
Total Wages	-0.5	-0.7	0.0

Source: Jardine Fleming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MYCALCARD

Japan may be experiencing its worst recession in 50 years, but you wouldn't know it if you examined the recent business results of MYCALCARD Inc., an Osaka-based nonbank finance company that is finding profitable growth in the business of issuing credit cards.

Consider this: During the 12 months that ended February 1998, the company, which is a member of the MYCAL Group, Japan's fourth-largest supermarket chain and operator of athletic clubs, cinema complexes and department stores, and so on, posted a whopping 63% gain in net income to $15.2 million on a 14.4% increase in operating revenues to $165.7 million, compared with the year before.

"We plan to take advantage of Japan's Big Bang financial reforms to offer new services to maintain our competitiveness."

SHIGEKI OBATA
MYCALCARD INC.

And if that weren't impressive enough, the company expects a further 10%-plus gain in operating revenues in the fiscal year that ends in February 1999, as well as a 37% jump in after-tax profits.

So, what recession?

"We are very fortunate," says MYCALCARD Chairman Shigeki Obata. "We have been able to achieve remarkable business results despite the negative effects of stagnant domestic consumer spending and intense competition," he says. "We feel very lucky."

Lucky? Perhaps. But the continuing good fo of the Osaka-based company have more to do management skills, market prowess and inno products and services.

Established in May 1982 as an instrument to e credit to customers of the Group's member comp MYCALCARD currently is a broad-based suppli credit not only to Group customers but nationwid member of the MasterCard system. Some 5.5 m MYCAL cards are in circulation and they are acc at more than 70,000 retail outlets.

"We expect to more than 140,000 outlets by the en 1999," says Obata.

Some of this gr will be the result of olutionary credit ca the first of its kind in Japan or anyv else, for that matter — that incorpo integrated circuit technology (IC) capab storing all kinds of information abo holder, from creditworthiness to h data. In addition, the company plan issue a smart card in the near future can be used as electronic money.

"By adding more features to our c cards, we can expand considerably range of services we offer our custom Obata says.

The company was the first to intro Automatic Service Terminals in Febr 1996, which simplified application cedures for potential customers allowed approved applicants to rec their credit cards almost immediately.

MYCALCARD has also extended its work of cash dispensers to cover locat beyond those of its group companies arrange tie-ups with other credit ser companies. As a result, the compa ATM and cash-dispensing network exp ed 30% during its past business yea more than 41,000 nationwide.

As might be expected, Obata wants company to become better known to domestic international investors. MYCALCARD was recently ed on the second section of the Tokyo Stock Excha According to Obata, it hopes to advance in the not- distant future to the prestigious first section.

"We want to establish a sounder financial struc mainly by increasing shareholders' equity and con trating on low-cost fund procurement through issuance of commercial paper and bonds," Obata s "We need to be ready for future expansion."

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JAPAN MAINTENANCE

When Osamu Shikata took over as president of Japan Maintenance Co., Ltd., a leading supplier of building maintenance and security services, his first self-assigned task was to launch a thorough review of his company's operations and its business environment.

What he found shocked him.

Among other things, he discovered that the idea of "maintenance" for most builders was little more than an afterthought of the construction process; something that took place after a building had been built. Little attention was being paid to maintenance costs in the planning and development stages.

"Our principle is to gain customer satisfaction by offering them optimal, integrated maintenance services that will preserve the operating efficiencies of their building for years to come."

OSAMU SHIKATA
JAPAN MAINTENANCE CO., LTD.

"Typically, building owners were only worried about how much a building was going to cost them, not how much it would cost to maintain the structure," Shikata explains, "when in fact, maintenance represents a cost factor, on average, of more than three times the original cost of the building itself."

Even more disturbing, he discovered that no one in his company or industry was taking the initiative to consult with building owners before they started construction of a new building to see how better pla could result in significantly lower maintenance Such advanced planning could save everyone m from the builder to the operator to the office tena

"It looked like a 'win-win' situation for every we could become involved at the beginning sta construction," he recalls. "So we began offering sulting services to architects and builders to plan and construct a better, more efficient bui with lower operating costs. It began a new chap our business."

The addition of this new business service, along his comprehensive review of all mainline servic his company, proved a win-win situation Japan Maintenance. D Shikata's five years as dent, his company has tered consecutive yea higher sales and earning appears headed for another record ye the 12 months ending February when operating profits are expecte increase by 8.1% to 990 million yen gain in revenues to 43.3 billion ye and in the midst of one of Japan's economic slides in 50 years.

Japan Maintenance was founde 1972 to provide maintenance, sec and cleaning services to fellow men of what is today known as the M Group, an association of more than companies involved in operating s markets, health clubs, cinema comp and department stores. Over the years Osaka-based company has steadily exp ed its services to companies outside MYCAL Group and added new ser such as acting as a consultant to the struction industry and managing dential buildings.

During Shikata's tenure as chief ex tive, Japan Maintenance has expande services to clients outside the MY Group. Approximately 43.2% of J Maintenance's estimated 43.3 billion in sales this year will come from services supplie non-MYCAL customers, compared with 38.5% w Shikata joined the company in 1993.

"We believe the potential for growth outside MYCAL system is quite good," Shikata says.

Shikata also sees room for expansion oversea emerging countries such as South Korea, Taiwan mainland China.

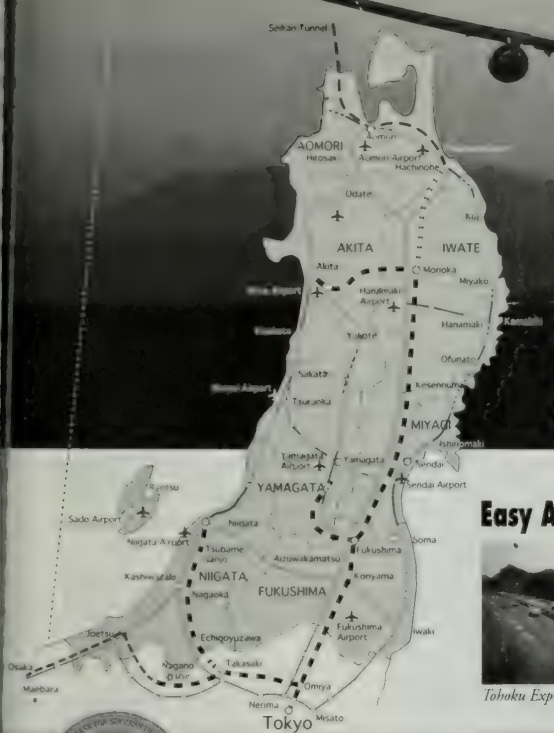
"Building maintenance is a global industry," he s

Discover TOHOKU

The reason wise investors now choose Japan

Active Regional Development

Tohoku is active in supporting local development. In addition to the prestigious Tohoku University, it has the Tohoku Intelligent Cosmos Plan.This plan aims to make the region an information and technology center to the world, in cooperation with the business, academic and governmental sectors. It also has the Venture-Land Conference, which supports venture start-up firms in the region.



Good Life

Tohoku is simply a great place to live. Easy to get to, spectacular scenery and a guaranteed warm welcome.

Low Costs

Land prices in Tohoku and labor costs are highly competitive, despite an outstanding location and skilled workforce.

Excellent Financial Support

A superb support system offers generous tax incentives and financing to companies locating in the region.

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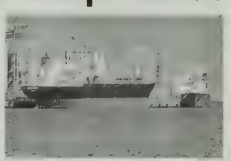
Tohoku Shinkansen (Bullet Train)



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GYOSEI

"Japan is going through a period of drastic change for the third time in the last 130 years. Not only politics and the economy but all of society must inevitably undergo unprecedented structural reforms."

The speaker is Motoo Fujisawa, president of Gyosei Corporation, which publishes 500 new books every year, as well as the Japanese edition of ***Forbes***. What he is talking about are the monumental and historic changes that Japan is undergoing at all levels — business, political, social and cultural.

Like many in his country, Fujisawa is concerned about the impact of change, not only on Japan's economy and society, but also on its spiritual center and its heart.

"Those who strive to preserve traditions are valued at times," he says, "but in a period like today when the future is uncertain and difficult to foresee, it is more important to try new things and accomplish them with speed."

"When you consider what Japan has accomplished since the war, the 'Big Bang' might be the price Jap has to pay to take its proper role in the next century's global economy."

MOTOO FUJISAWA
GYOSEI CORPORATION

Fujisawa is the guru of one of the oldest publishing companies in Japan, an enterprise with 106 years of tradition and history. But his thinking and policies are not all conservative.

Reflecting on recent political change, Fujisawa doesn't interpret the replacement of the Hashimoto government with one headed by Prime Minister Obuchi as a major defeat of the Liberal Democratic Party, but er a rejection by the Japanese people of the mann which previous governments have ruled.

"The LDP, which had been in power since 1955 its long-standing political grip in 1993," Fujisawa "Since then, all political parties, instead of tryin grasp what people really want, have been repea coming and going without any commitment to id gy or principles. They have focused only on stayi power. No wonder the LDP suffered an election c last summer.

"Given the present mood of the electorate, v ever political party had been in power would lost the elections anyway," he says. "The Japanese ple want changes, and any politician or party who gets this fact has no future."

Despite some critical media rep about Obuchi, Fujisawa approa Japan's new prime minister high expectations: "It is true tha is a good-natured man as the m has noted. But he is more than I rather see in him a cautious st gist. Those who make light of may be very much surprised in future," he warns.

The top priority for Obuchi is, a himself admits, economy and finar Fujisawa thinks. Japan is in a "dead situation" that "will last sev years," he adds. "It is wrong and un sonable for the state to continue to port companies that are aln bankrupt, especially financial and c struction companies, on the pretex preventing a world crisis starting fi Japan. The so-called 'Big Bang' finar reforms might be rather beneficial to Japan and have effect of accelerating its recovery."

Opposition to reform is, in the end, futile, cautions. "When you consider what Japan has acc plished since the war, reforms like 'Big Bang' might the price Japan has to pay to take its proper role the next century's global economy."

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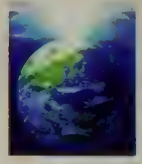

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FRED GOLDMAN, chief market strategist at A.G. Edwards, expects the market's late-fall rebound to continue and that the Dow will soon break past its November 1998 high of 9374. In fact, Goldman expects the Dow to reach 10,500 sometime in 1999. Why such optimism? Goldman thinks that the economy will show surprising strength in 1999.

He sees opportunity in downtrodden energy stocks. One favorite: deep-water driller Transocean Offshore (RIG, $26), which sells for 8 times Goldman's 1999 estimate of $3.30 a share. Another pick is Schlumberger (SLB, $45), which is off 30% from its 52-week high and sells for 16 times Goldman's 1999 estimate. Goldman thinks that crude oil prices (currently $11 a barrel) will rise by at least $3 in 1999.

Special Forces

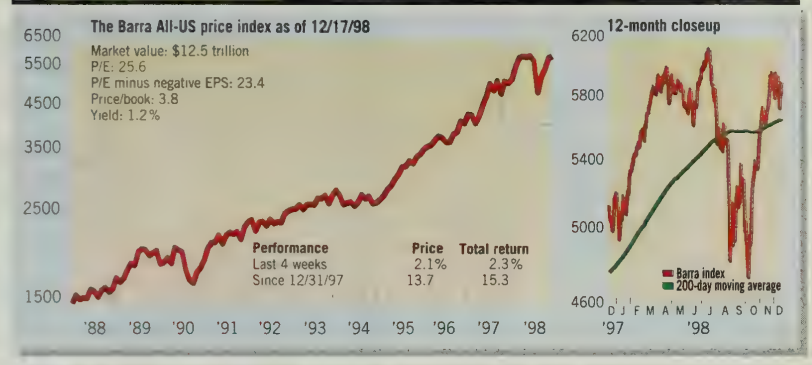
These companies lost at least half their market value in 1998, and for good reason. All are expected to show deficits in fiscal 1998. If securities analysts' outlook for their recovery is right, there could be a few bargains on this list. The eight companies sell for an average of just 13 times estimated 1999 earnings.

Turnarounds?

Company	Recent price	1998 est EPS	1999 est EPS
Cabletron Sys	$8.81	$-0.01	$0.51
EduTrek Intl	6.06	-0.03	0.50
Friedman Billings Ramsey	5.88	-0.32	0.60
Northwest Airlines	23.25	-1.58	3.41
Perceptron	6.25	-0.10	0.37
Pioneer Group	14.88	-1.06	0.87
Pittson Bax Group	8.19	-0.87	1.07
Sequent Computer Group	9.94	-0.21	0.51

Source: IBES Express.

The overall market



Closeup of the markets

Index or investment	2-week change	% change from 1 year ago	% change from 5-year high
Barra All-US index	1.9%	16.1%	-3.7%
S&P/Barra Growth index[1]	3.0	36.1	-0.6
S&P/Barra Value index[1]	2.1	10.8	-5.3
Dow Jones industrials	0.0	13.1	-5.3
S&P 500	2.6	23.5	-1.0
NYSE	1.2	13.6	-5.1
Nasdaq	4.6	34.2	-0.3
PSE Tech 100[1]	3.3	49.9	-2.0
EAFE[1]	1.7	13.5	-6.5
CRB futures index[1,5]	-2.3	-18.5	-27.1
Gold (Comex spot)	0.0	1.4	-29.8
Yen[6] (per $US)	-1.9	-9.7	-21.1
Oil (W Texas Intermediate)	-1.3	-40.5	-58.5

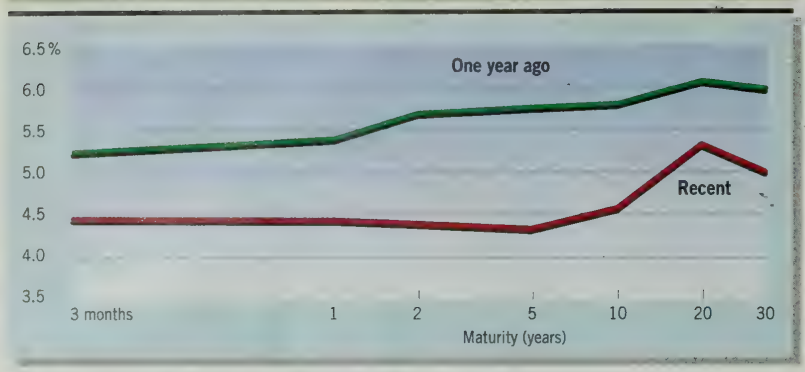
What the funds are buying and selling[7]

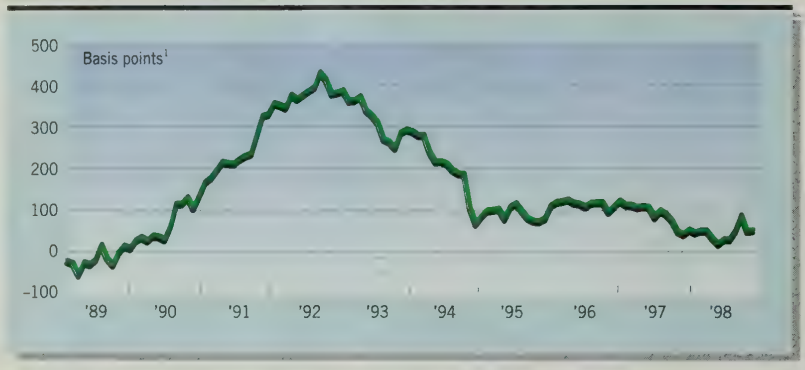
Buying	Recent price	Market value ($mil)	1999 EPS[8]	Selling	Recent price	Market value ($mil)	1999 EPS[8]
Keystone Financial	$34.50	$1,775	$ 2.11	Mid Atlantic Medical Svcs	$9.75	$484	$0.80[9]
PSINet	17.00	881	-4.30[9]	Read-Rite	14.50	706	0.18[9]
Security Dynamics Technologies	17.88	731	0.68	Steel Dynamics	11.06	529	1.06
ServiceMaster	21.50	6,392	0.76	Teradyne	38.00	3,189	1.29[9]
Telephone & Data Systems	47.25	2,890	0.15[9]	Trans World Airlines	5.81	335	-0.06[9]

The best and worst performing industry factors[10]

Best	2-week change	Change since 12/31/97	Worst	2-week change	Change since 12/31/97
Iron & steel	11.3%	11.2%	Leisure, luxury	-9.0%	-13.8%
Oilfield services	11.3	-58.8	Beverages	-4.5	-6.7
Trucking	9.0	-14.1	Tobacco	-3.8	16.3
Water transport	8.0	-1.4	Containers	-2.1	-18.7
Motor vehicles	7.9	67.0	Tire & rubber	-2.0	-10.7

Data for period ending 12.17.98. The Barra All-US price index consists of all publicly traded U.S. common stocks for which price quotations are available and ordinary shares of foreign stocks traded on U.S. markets. ADRs, REITs and closed-end funds are excluded. [1]Total return of more than 150 large-capitalization stocks that have high historical earnings growth and have predicted above-average earnings growth. [2]Total return of more than 300 large-capitalization stocks characterized by low price-to-book ratios, high yields and low price-to-earnings ratios. [3]A price-weighted index of 100 widely followed U.S. technology stocks. Base value 12/31/82 = 50 (adjusted). [4]A dollar-denominated capitalization-weighted index of more than 1,100 foreign stocks. Source: Morgan Stanley Capital International. [5]Index of 21 commodity futures. [6]Source: Bridge-Commodity Research Bureau. Buys and sells are tabulated by fastcheck.com, a proprietary model from the Mutual Discovery Network. For an update on the performance of these stocks see our Web site at www.forbes.com/wallstreet. [8]Consensus estimate. [9]Flash estimate is the average of a firm's estimates received over the last four weeks. Flash estimate is printed when it differs from the consensus by at least 15%. [10]Shows return after controlling for other influences, including company size, value and growth characteristics. Multi-industry firms have proportional contributions in two or more groups. *Principal sources: Barra, Inc.; IBES Express.*





Spread over Treasurys*

Security[4]	Basis points
AA corporates	70
AAA industrials	56
Ginnie Maes	136
Junk corporates[5]	624
Municipals[6,7]	–108

Total returns*

Security[4]	1 year	3 years[8]
AAA corporates	8.3%	7.3%
Ginnie Maes	8.1	8.1
Junk corporates[5]	1.7	8.9
Municipals[7]	7.7	6.9
Treasury bonds	11.0	7.9

BY ERIC S. HARDY

THANKS TO SUSTAINED low inflatio interest rates fell sharply during 19 and should decline still further in t first half of 1999, according to P Bank chief economist Stuart Ho man. By mid-1999 Hoffman expe the Federal Reserve to reward fix income investors with at least tw 25-basis-point cuts in the Fed fun rate (the interest rate at which ban lend money to one another). Th bodes well for bond prices: Hoffm expects the yield on the 30-ye Treasury bond to decline to as low 4.5% from its current 5%.

Municipal bonds also look cor pelling—even for investors who are in the highest tax bracket. Consider high-grade (AAA Moody's ratin 30-year municipal bond yieldi 4.9%. No question, a Treasury bon with a similar maturity and yield (5% carries slightly less credit risk and noncallable. But owners of the muni ipal bond appear to be well compen sated for the excess risk. Assuming 31% federal tax bracket, the municip bond offers a taxable equivalent yiel of 7.1%.

One aversion investors have t municipal bonds is the variance c prices between brokers. This is espe cially true when someone tries to se a bond. Thomas Doe, president c Municipal Market Advisors, a Con cord, Mass. research firm, point out: "Municipals are perceived a more hassle [to invest in] tha stocks, in part because stocks ar listed in the paper every day an munis aren't." Fortunately, the com puter is making it much easier fo even small investors to assess th market. Palo Alto-based E*Trade, publicly traded on-line brokerag firm, introduced a comprehensiv bond-trading system for individua investors on Dec. 8, 1998. Client can access credit ratings and price for municipal, corporate and Trea sury bonds and trade them on-line. The Bond Market Associa tion also has an excellent free Web site (www.investinginbonds.com) with a plethora of bond-trading information.

Note: Most information provided by Barra, Inc., Berkeley, Calif. *As of 11/30/98. [1]A basis point is equal to one-hundredth of a percentage point. [2]Yield on 10-year Treasurys. [3]The trailing 12-month increase in the overall Consumer Price Index. [4]Composite maturities. [5]Source: Credit Suisse First Boston. [6]Spread between long-maturity municipal bonds and 30-year U.S. Treasury bonds. [7]Source: Lehman Brothers. [8]Annualized.

ed by Matthew Schifrin

las, better focus

ROCHESTER, N.Y.-BASED eyewear giant Bausch & Lomb (NYSE: BOL) was once a Wall Street darling. But that was long ago.

Problems started in the early 1990s when former chief executive Daniel Gill bought Miracle Ear hearing aids and allowed competition to erode profits at its Ray-Ban sunglasses unit. Meanwhile, Johnson & Johnson brought out disposable contact lenses, which had begun corroding Bausch & Lomb's domestic market share in contact lenses. It ultimately slipped to 13%, falling behind J&J. In 1995 Gill resigned after he was accused of cooking the books.

Bausch & Lomb's stock fell from $58 in 1992 to $32 in 1994 and has languished ever since, a wallflower in the great bull market.

A turnaround looms. Chief Executive William Carpenter, a J&J veteran, took over in 1997. He is selling the moneylosing hearing aid and eyewear businesses. Back to basics now, B&L is aggressively marketing its disposable weekly lenses, Soflens66, to optometrists, and has introduced two new kinds of lenses, including a daily disposable. Its lens solution business now commands 28% of that market, with gross margins of 70%.

A bull on the stock, Ethan Silverman of hedge fund Silver Tree Capital LP says Carpenter's fixes will make Bausch & Lomb, a $2 billion (revenues) pure play in optical health care, a growth business—since 120 million Americans need visual aids. Best of all, B&L is pushing into the hottest segment in optical health care: corrective eye surgery. This year 400,000 Americans had surgery to correct their vision, up from 180,000 in 1997. Believers think the numbers will double again by 2001.

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JFK with his trademark Ray-Bans

The shades biz has seen better days.

The surgery, which uses blades to cut the cornea and lasers to reshape it, costs $1,950 per eye. Bausch & Lomb's Chiron Vision controls 85% of the market for the tiny microkeratomes, or blades, used in the operation. And soon B&L will introduce its own lasers, approved for use in Europe, which will boost the revenue it collects for every corrective procedure. Chiron generated revenues of $55 million in 1997 and about $70 million in 1998. Silverman believes Bausch & Lomb's surgery equipment business, plus its eye pharmaceuticals business, will grow 20% next year.

Bausch & Lomb trades at $56, or 20 times projected 1999 earnings, versus 25 times for competitors. Silverman thinks the stock should rise at least 50% by year-end.

–STEPHANE FITCH

No fish story

LAST YEAR Avram Glazer, the son of Malcolm Glazer, the controlling shareholder in Houston-based Zapata Corp., caught Internet fever. In April Zapata sold off 40% of its marine protein business, renamed Omega Protein, in an initial public offering priced at $16. They used some of the proceeds to invest in Zapata's Web business; the Web plan promptly flopped.

A menhaden fish

Stock's a nice catch, too.

Since then Omega's (NYSE: OME) stock price has fallen as low as $3.75. This is one fallen IPO that's well worth a look.

Omega is in a pretty good business. Each year from April to December Omega sends its fishermen onto the Chesapeake Bay and off the Gulf Coast to catch menhaden—oily, silvery fish that swim in giant schools. Plant workers roast the catch to make three products: fish meal used for animal feed, fish oil used in items like margarine and paint, and fish solubles used for fertilizer. It has been a fairly steady business since 1913, and today Omega's $133.6 million in revenues account for 80% of the marine protein market in the U.S.

So why did the IPO tank? In 1998 Omega was battered during the late summer selloff in small cap stocks. Then, a bad hurricane season in the Gulf reduced the catch there by 20%.

The stock, at a recent $8.25, is selling at less than eight times 1998 earnings. Timothy Ramey, an analyst with Deutsche Bank Securities, thinks its shares are cheap. "This company has enormously good operating margins, about 25% this year, and its cash flow looks strong: $17.9 million for 1999, $25.3 million for 2000."

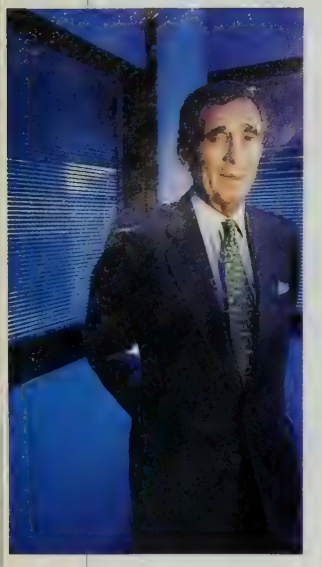
Thanks to investment in new facilities, the company is processing more specialty fish meal, which should boost margins next year. Another big plus for Omega: In 1997 the FDA approved the use of menhaden oil as an ingredient in food. Omega already sells its fish oil to food producers in Europe and has recently started marketing it in the U.S. Fish oil, unlike soy, is high in omega-3 fatty acids, considered by scientists to be healthful.

Omega's earnings are no fish story. For fiscal 1999 (Sept. 30), analyst Ramey says earnings will be down a bit, to 90 cents, because of the hurricanes. But he expects income to be back to $1.20 in the next fiscal year.

–ASHLEA EBELING

By David Dreman

Las Vegas on Wall Street



WHEN YOU GO TO Las Vegas, you know the odds are stacked in favor of the house and against the players. Though most people don't realize it, the odds in many of the hedge funds are stacked even more heavily against the investor than they are in Vegas.

As I understand it, the casinos set the numbers so that they rake off about 5% of the take. That's charity by comparison with hedge funds, which generally demand 20% of the profits, share none of the losses and nick you for 1.5% to 2% per annum, even if they lose.

True, there are some grand masters of investing who run hedge funds, like George Soros or Julian Robertson. But for every Soros or Robertson there are dozens of wannabes who are simply gambling with their clients' money in the hope of gaining that 20%.

Van Hedge Fund Advisors Inc., in Nashville, has built a performance index using monthly returns of 2,600 hedge funds (1,500 domestic, 1,100 international). The table below summarizes returns from the start of 1993 to the end of October 1998.

Playing long odds

Type of fund	1998	1993-98
Aggressive Growth	10.2%	16.6%
Distressed Securities	–2.4	13.3
Emerging Markets	–32.0	6.1
Fund of Funds	–1.1	10.9
Income	–2.8	7.0
Macro	2.0	12.1
Market Neutral-Arbitrage	1.3	12.4
Market Neutral-Securities Hedging	4.2	15.0
Market Timing	19.9	13.6
Opportunistic	3.3	18.0
Several Strategies	3.5	13.6
Short Selling	–6.0	–3.0
Special Situations	2.9	17.2
Value	1.7	17.1
Van Global Hedge Fund Index	–1.0	13.4
S&P 500	14.6	19.9

Total annualized return January 1993 through October 1998. Data: Van Hedge Fund Advisors.

Hedge funds have sharply underperformed the bull market.

After deducting their rich performance fees, hedge funds as a group sharply underperformed the S&P 500 in six years of this runaway bull market. They took outsized risks to get even this dismal return. Many hedgies use leverage and turn their portfolios over 200% or more a year, leaving the taxable investor with a fistful of short-term gains. In a 40% tax bracket, the 13.4% hedge fund return over time drops to 8% aftertax.

The table shows that there are 14 categories of hedge funds to chose from, ranging from aggressive growth to emerging markets to distressed securities. Not one category beat the S&P over the whole period.

Actually, the numbers reported to Van may overstate the funds' results, despite the firm's efforts for accuracy. Dismal records are probably never reported, and funds that were good but have since fallen on bad times are less inclined to share the news.

In short, most investors are better off in an index fund. It may not make for the best cocktail chatter, but indexing is better for your financial health than going the hedge fund route.

If you still can't resist the lure of leveraged, outsized profits, make sure you are with a pro who has outperformed the market for ten years or more. If you are in a taxable account, monitor carefully what part of the gains are short term.

Better yet, go the low-P/E route to long-term growth of your capital. Here are some of my current choices:

Columbia Energy (58, CG) owns two gas pipelines and eight gas distribution companies. In 1998 earnings were flat as a result of warm weather but should rise 15% this year. Stock trades at a price/earnings ratio of 18, yielding 1.4%.

Conoco (20, COC) is an integrated oil company, 30% of which was recently sold to the public by DuPont. The stock appears to be a good bet on a rise in the price of oil because of its large reserves. It trades at a P/E of 16.

KeyCorp (32, KEY), a major regional bank, has branches in 13 states. Concerns about growth have knocked the stock down almost 30% from its 1998 high. The stock is good value at a P/E of 14 and a 2.9% yield.

Schlumberger (44, SLB) is the world's largest provider of oilfield services. The pressure on oil prices has resulted in the stock's dropping 55% from its 12-month high. But the world isn't going to stop using oil, and SLB looks promising at a P/E of 21 and yield of 1.7%.

Universal Corp. (33, UVV) is the world's largest importer and exporter of tobacco leaf and a major processor and distributor of tobacco. UVV has dropped more than 30% on the news of the tobacco settlement and poor crop conditions. It presents good value at a P/E of 8 and a 3.6% yield. ■

David Dreman is chairman of Dreman Value Management of Jersey City, N.J. His latest book is *Contrarian Investment Strategies: The Next Generation.*

David P. Goldman

Stocks versus junk

IN MY AUG. 10, 1998 COLUMN, I contended that Treasury bonds looked better than stocks on a risk-return basis. That was timely advice. Between July 27 (when the column appeared) and Dec. 21, the 30-year Treasury bond returned 14% to investors. After a lot of whipsawing, the S&P 500 was up just 7%.

I now think the Treasurys have had their run. Buy long Treasurys only if you want safe coupon income and very modest price appreciation.

Buying junk is like buying a Treasury—and simultaneously selling put options. You ought to know why.

What next? It's time to think of slightly riskier ventures with your money. You could switch from Treasurys to junk, or you could create a so-called balanced portfolio by splitting your investment between Treasury bonds and stocks. These two strategies are roughly equivalent in risk—junk is, after all, something of a hybrid between stocks and bonds—but they can be very different in investment results. Of the two strategies, I think the junk option is better.

The reason that I consider junk to be a good buy, while a traditional stock-bond mix is not such a good buy, is that options are too expensive these days. If that sounds like a non sequitur, read on. Options are embedded in just about any portfolio you might have, and any time you make an investment decision you are making an implicit judgment about option values.

Investing in junk bonds is like buying Treasurys and at the same time selling out-of-the-money puts on stocks. When you sell a put, you collect a fixed premium. You take the risk that the price of the underlying stock will fall below the strike price. You don't stand to gain if the stock price goes through the roof, so your upside is limited, but you can lose a lot if the stock goes through the floor.

Why would you want to sell put options? It would make sense if you thought that options were overpriced. When something is overpriced, selling it is a good strategy.

And why is the purchase of a junk bond akin to the purchase of a Treasury coupled with the simultaneous sale of a put option? Because the extra yield on the junk bond is like the premium income you get from selling a put option. As for your risks, they are about the same with the two investments. Every now and then stocks sink like a stone, with the result that put sellers take a beating. In a similar fashion, every now and then a company collapses in value, sending its stock price through the floor and occasioning huge losses of principal for the owners of its junk bonds.

For example: If you sold a put on the S&P future on Dec. 15, 1998 for expiration in 12 months at a strike price of 1,100, you would receive $76, or 6.5% of the then current 1,178 price of December 1999 S&P futures. Think of that 6.5% premium as like the yield premium on a junk bond. If the stock market collapses (or the bond defaults), you lose. If it surges, you keep your premium and no more.

Volatility drives option prices. The greater the volatility, the more an option is worth. In fact, the spread between junk bond yields and Treasury yields tracks equity market volatility quite closely.

Equity, on the other hand, can be thought of as a long call option on the assets of a company. When you own equity, you have a long position in the option. By this logic, we reduce the issue of junk bonds versus stocks to one question: Are equity options rich or cheap? If they are rich, you would rather be a seller than a buyer.

I think option prices are too rich these days. The summer crash spooked investors into expecting greater volatility in coming months than we will experience.

Be a seller, not a buyer, of overpriced options. Do that by owning junk bonds or a junk bond fund.

If you agree with me that the U.S. is in no danger of a major recession, you should consider junk bonds as an alternative to stocks. As economic uncertainty fades, junk bonds should appreciate a bit even if stock prices remain stable or fall slightly. ■

David P. Goldman is Credit Suisse First Boston's global credit strategist.
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By Martin Sosnoff

Buffett and cheap oil don't mix

A GALLON OF GASOLINE is cheaper than a liter of Coca-Cola. This is bad news for Coke, bearish for Berkshire Hathaway, specifically, and generally a worldwide depressant. It doesn't help banks and brokers dealing in emerging market bonds, either.

Oil below $10 a barrel is biting into Mexico, Venezuela, Indonesia and all the Middle East oil producers, also Norway. Their 1998 budgets were based on $17 oil. Ten-dollar oil spells deficits in the billions, weakening currencies and more geopolitical risk for everyone. It's hard to find even an energy security analyst who thinks an early recovery is in the cards.

This is also bad news for Warren Buffett. Buffett stands today immobilized by his own successes in franchise-based equities like Coca-Cola, American Express, Geico, Washington Post Co., Disneyland and Gillette. Berkshire's equity portfolio, overweighted with almost $13 billion in Coca-Cola out of $31 billion in specified equities, underperformed the S&P 500 by 20 percentage points in 1998. Coke performed particularly poorly relative to other pricey securities, like Pfizer, Microsoft and Lucent, which virtually doubled in 1998 and are not so dependent on emerging markets.

Unless you believe worldwide reflation is coming soon, it's hard to see 1999, either, as a vintage year for Berkshire Hathaway. There is a strategic problem with Berkshire's portfolio of insurance operating companies. After an eight-year bull market, the capital-to-surplus ratios of most fire-and-casualty underwriters is woefully underleveraged. Normally, the premium-to-surplus ratio for underwriters is closer to 2-to-1. Today it's almost 1-to-1. This has caused everyone to shave premium rates, but it is also topping out the investment income line, which is where the carriers make their money. The same goes for reinsurance worldwide.

Gen Re runs a 1-to-1 premium-to-surplus ratio, with little growth on its premium revenue line. The company is too smart to take bigger risks for lower rates, and is determined to maintain its combined ratio of losses and expenses at 100 or below. Aside from capital gains on its portfolio, which is heavily weighted in bonds and municipals, earnings are flattening out.

Unless you believe worldwide reflation is coming, it's hard to see 1999 as a vintage year for Berkshire Hathaway.

To get going, Buffett needs to make a timely entry into equities with as much as $10 billion to $15 billion of Gen Re's investment portfolio, plus $5 billion or more of Berkshire's cash. Where is he going to put the money in a market priced at 24 times forward 12-month earnings? Being fully invested regardless of price isn't Buffett's style.

I like what he's doing with Geico. Going for market share against State Farm and Allstate makes sense. I can see Geico picking up market share points over the next three years, but only 15% of the total market is available for switching. Allstate retains over 90% of its customers with good service, and the industry's 15% that switches is not the highest-quality business. So Geico will grow its cash flow at 15% or better, but this will penalize near-term earnings. That's vintage Buffett: He'll take cash flow over earnings anytime.

But put it all together and what do you have? Berkshire Hathaway as a stock peaked at $89,000 last year and trades closer to $60,000 currently. For Berkshire to see $89,000 again, Buffett's going to need the following: worldwide reflation to lift Coca-Cola; a chance to reinvest his cash, some $25 billion of Gen Re's portfolio and growth in Gen Re's premiums in a soft worldwide reinsurance market.

All this suggests Buffett is likely to press for another big acquisition before long in order to get some growth.

If Warren Buffett has to scramble to make money in these conditions, what does this say for the average investor? It says that if he or she owns 30-year zero Treasury bonds, he or she is in good shape for the new year. ■

Martin Sosnoff is chief investment officer of Atalanta/Sosnoff Capital in New York and author of *Silent Investor, Silent Loser*. E-mail: mts@atalantasosnoff.com

By Steve H. Hanke

Vive le cowboy capitalism

BILL CLINTON WANTS TO RAISE the minimum wage. Again. And who wants to argue with him, especially during the holiday season? Who would begrudge giving a little extra to all those people slaving away at what for most is their first real job?

My answer is: Go talk to all those French kids who haven't got jobs—and may never have jobs, thanks to the kind of social engineering Clinton is proposing.

Clinton probably hasn't read the Nov. 30 issue of FORBES. It contained a piece by Richard C. Morais titled, "Even the chefs are leaving France." Morais chronicles why the best and the brightest in France are voting with their feet; oppressed by France's welfare state, they are attracted in large numbers by what French eggheads like to disparage as American "cowboy capitalism."

This cowboy capitalism has created so many jobs that there are shortages here in the U.S. and a national unemployment rate of just 4.4%. In France, where the all-powerful state forbids cowboy capitalism, the unemployment rate has hovered around 12% for six years—and among young people the comparable rate has been 25%. From the skilled end of the jobs spectrum to the unskilled end, young French people are moving abroad. Perhaps they prefer being exploited by cowboys rather than being pampered by the French state.

No sooner had I read Morais' article than a silver bullet arrived from the National Bureau of Economic Research, Inc. in Cambridge, Mass.: "Minimum Wages and Youth Employment in France and the United States," by Abowd, Kramarz, Lemieux & Margolis (NBER Working Paper No. 6111).

The authors' exhaustive and thorough study focused on young people under the age of 31. In both countries, this is the age group that suffers from the highest rate of unemployment. During 1981–89, the period covered by the French part of the study, the French minimum wage was rising faster than inflation. To determine the impact of the minimum wage, the authors followed the unemployment records of workers whose wage just prior to an increase in the minimum wage was above the old minimum, but below the new minimum wage.

Adjusted for inflation, the minimum wage fell. And guess what? As it fell, previously unemployed people had a better shot at getting a job.

The idea here was that these workers would be the most likely to lose their jobs when the minimum wage was increased. Sure enough, each 1% increase in the minimum wage resulted in a 4.6% decline in the probability that a French man between the ages of 25 and 31 would keep his job. Increases in the French minimum wage priced some young people out a job.

Economics 101 works, even in France. Does Clinton think it doesn't work in the U.S.?

Unlike in France, the minimum wage in the U.S. stayed the same—$3.35 per hour—during the 1981–87 period covered by the American part of the study. This means that, with inflation, the real minimum wage was falling in the U.S. during the period studied. And the NBER research found that each 1% decrease in the real minimum wage made it 2.2% more likely that a previously unemployed young person would find a job.

It's as simple as this: The declining real minimum wage in the U.S. was pricing previously unemployed workers into jobs. At the same time a rising real minimum wage in France was pricing younger workers out of jobs.

This should come as no surprise to anyone: Untrained, ill-educated youngsters are not very productive. If their labor is priced above the value of what they produce, no one will hire them.

Before the U.S. Congress gives up on cowboy capitalism and heeds President Clinton's call to raise the minimum wage, it should ponder the results of this blunt fact. Over a glass of Bordeaux, of course. ■

Steve H. Hanke is a professor of Applied Economics at The Johns Hopkins University in Baltimore.

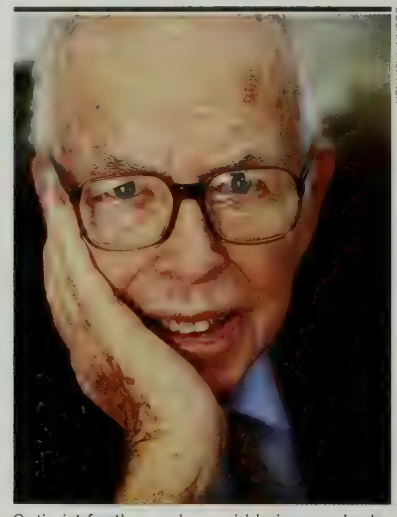
The day Auburn Motors crashed

At age 90, Wall Street veteran Tubby Burnham is playing Internet stocks, but not the ones that immediately come to mind.

By Robert Lenzner

I.W. (Tubby) Burnham II turns 90 on Jan. 7, but he doesn't find the crazy run-up in Internet stocks to be all that surprising. He's seen this kind of thing before: thin capitalizations, frustrated shortsellers, wild public enthusiasm.

Burnham, a Maryland native, is a real survivor. He has lived through the Great Crash, World War II, the inflationary 1970s and now this, the greatest bull market of all times. His Burnham & Co. became Drexel Burnham Lambert, but Tubby sold his shares before the brokerage house collapsed, getting out well below the peak but at least salvaging a good part of his fortune. He now does business for a handful of wealthy clients.



SUSAN SAUNGER

Optimist for those who avoid being crushed
Money man I.W. Burnham.

A cool take on hot issues

Company	Ticker	Recent price	52-week high	52-week low	Estimated EPS 1998	Estimated EPS 1999	Yield	Estimated payout 1999
American Italian Pasta	PLB	$22.75	$39.50	$17.63	$0.98*	$1.26	NM	NM
Bell Atlantic	BEL	56.75	58.88	40.44	2.72	3.00	2.7%	52%
BellSouth	BLS	43.50	45.88	27.06	1.63	1.85	1.7	39
Ford Motor	F	56.88	65.94	38.80	5.20	5.10	3.2	36
GTE	GTE	68.00	68.38	46.56	3.06	3.49	2.8	54
Gulfstream Aerospace	GAC	49.00	53.88	26.50	2.97	3.75	NM	NM
Texaco	TX	52.63	65.00	49.06	1.83	2.45	3.4	71

Prices as originally reported, adjusted for splits through Jan. 11. NM: Not meaningful. *Actual.
Sources: First Call; Value Line Investment Survey.

How to be trendy but not burned.

Tubby was 20 in 1929, when he got his start as a "boardboy" for a Baltimore firm, Frank B. Cahn & Co. In those preelectronic days, his job was to post stock price changes on the firm's blackboard. He recalls being bewildered by the volatility in the prices of 15 automobile manufacturers, especially the now long-dead Auburn Motors. It may seem strange to more recent generations, but auto stocks, especially the smaller and more speculative ones, were once the wave of the uture. A presidential candidate even conjured up a day when there would be two cars in every American garag

"Auburn Motors rose almost ma ically from $150 to $500 because t short interest was larger than t whole capitalization," Burnha remembers. "The shorts were fina taken out around $500, and then t stock sank out of sight.

"The public is buying Intern stocks, which sell all out of relation earnings. People are going to g hurt," says Burnham."Money is ma by investing for the long run, not i and-out on a daily basis. It bothers n that more and more traders are peop with modest incomes and small stakes

Burnham doesn't blame the spec lators, who have had, after all, ve little experience. He puts the blame c brokers, especially on the Interne "The first rule of Wall Street is know your customer. But these ne firms are so gung ho to do busines they'll take anyone."

No, he's not predicting a mark crash or a depression. But he recon mends caution. It's not just the Inte net bubble. The unremitting declir of commodity prices—zinc, lea iron, oil—reminds him of the 1930 "This was one of the troubling trenc in the 1930s—commodity pric wouldn't rally."

He thinks Greenspan is doing th right thing in these circumstances b lowering interest rates—"It definite levitated stock prices," he says—but h wonders if this will be enough to pr vent the global slowdown from spread ing to our shores. "We might be in situation like Japan where interest rat don't trigger economic activity. Th Fed can stimulate the stock market bu may not stimulate business.

"My own opinion is 1999 [and maybe 2000 are going to be toug years for business. They can't rais prices. If the economy is sluggish i March, I'd expect weakness in th stock market."

Will the presidential impeachmen tank the market? Burnham shrug "I've lived through 16 presidents. only liked 6 of them, and we survive them all." For his own account and fo his clients—"a bevy of wealth widows"—he's 50% in stocks and 50 in municipal bonds and cash.

When it comes to stocks, he is no ignoring the Internet and all it implies

E-nuities

By Carrie Coolidge

NICE TRY, Lincoln Life. But not quite good enough.

Breaking with its colleagues in the agent-based insurance industry, Lincoln is selling a cut-rate variable annuity on the Internet. Because it has no agent to compensate on these computer-generated annuity sales, Lincoln can offer a pretty good deal—a 3% surrender fee, compared with the typical 6% for agent-sold policies, and an annual "mortality and expense" fee of 55 basis points, again better than the usual.

But even so, the Lincoln deal is no great bargain. You can get a low-cost annuity from Jack White or Vanguard, among others. On these no-load investments there are no surrender charges at all, and your annual expenses are lower, too *(see table)*.

A variable annuity is a mutual-fund-like account wrapped in a thin veneer of insurance that renders the investment earnings tax deferred. That tax deferral can be mighty attractive, but it comes with a price: An annuity converts capital gains taxed at low rates into ordinary income taxed at high rates.

Lincoln Life's on-line annuity, available at www.eannuity.com, offers 14 portfolio options, with fund fees ranging from 35 basis points per year for the Growth & Income fund to 102 basis points for the Equity-Income fund. Those fund fees are in addition to the mortality and expense charge. The minimum initial investment is a low $1,000, and account holders can transfer money among funds—on-line, of course—24 hours a day. The surrender fee disappears if you hold the annuity for at least three years.

It all adds up to a decent effort to cut costs. But you get what you pay for. At Lincoln on-line there's no customer service rep to talk to over the phone, although you can e-mail questions.

Are you seriously considering a variable annuity? First make sure you are a suitable buyer. You should have exhausted your 401(k) and IRA options, you should have plenty of investable assets and you should be able to tie your money up for at least a decade (to enable the tax deferral to do some good) and to tie it up past age 59½ (to avoid a tax penalty).

You should also have thought about, and rejected, another good way to get a tax deferral: buy stocks and hold them for a long time.

If you really do need an annuity, get the cheapest one you can find. ■

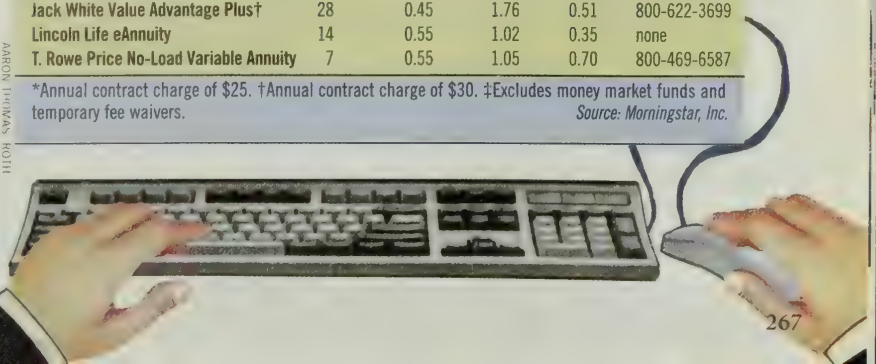
Of these variable annuities, only Lincoln Life's carries surrender fees. ■

Low-fee annuities

Policy	Investment options	—Annual expenses per $100— mortality/ expense	—fund fees— high	low‡	Telephone
Vanguard Variable Annuity Plan*	9	$0.38	$0.46	$0.23	800-523-9954
Jack White Value Advantage Plus†	28	0.45	1.76	0.51	800-622-3699
Lincoln Life eAnnuity	14	0.55	1.02	0.35	none
T. Rowe Price No-Load Variable Annuity	7	0.55	1.05	0.70	800-469-6587

*Annual contract charge of $25. †Annual contract charge of $30. ‡Excludes money market funds and temporary fee waivers. *Source: Morningstar, Inc.*

AARON THOMAS ROTH



it he's playing it conservatively. He vns a lot of GTE, which he got in the quisition of Contel in 1991. Burnm likes the combination of telehone, cellular and Internet operations at make up GTE. Should the market ften, he says he would be a buyer of ellSouth. "It had the best annual port last year I've ever seen, spelling ut exactly the strategy that drove the ock from $60 to $90."

He thinks Lucent is overpriced, so e is putting his Internet hardware ollars on ECI Telecom, an Israeli ompany selling to GTE, British Telem and Deutsche Telekom. "You can et it for less than 20 times earnings," ys Burnham.

Ford Motor is one of his favorites, oo, because he thinks it is going to arn at least $5 a share this year and it ts on $23 billion in cash that can be sed either to buy the stock back or o raise the dividend or both.

Though he isn't optimistic about ommodity prices, Burnham is buying Texaco. " It's not likely to remain indeendent forever and could be worth $80 in a takeover," he says. In the meantime non-OPEC producers are ikely to reduce their production of oil.

Among smaller stocks, he is high on American Italian Pasta Co., the largest pastamaker in the U.S., which makes private brands for discount chains like Wal-Mart and Kmart. "It has fallen back near its initial offering price of $18 and ought to grow over 20% a year," Burnham feels.

A favorite stock is Gulfstream, the manufacturer of executive jets, which has an order backlog of over $3 billion. "Every corporate executive covets a G5 because they are tired of poor commercial air service and worried about the threat of terrorism." He thinks it is cheap at $49 a share, given that it can earn $3.75 or better in 1999. And he's impressed with a politically savvy board that includes George Shultz, Colin Powell and Robert Strauss.

He also has some noninvestment advice for people: don't retire. "My mind's still active because I worked all my life. And I've made young friends. That keeps you young." So does going to the office nearly every day. Except on those days when he's piloting his 87-foot motor launch off Palm Beach and Nassau. ■

The Internet mania fund

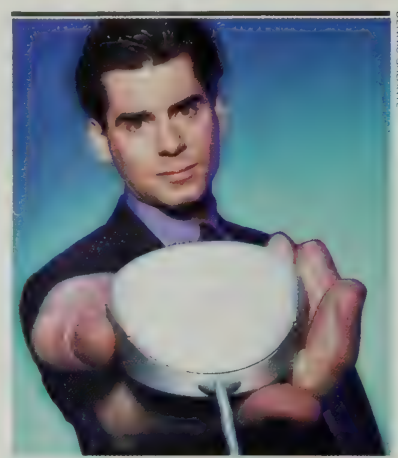
The hottest investment company of the year will take you on a wild ride—probably down.

By Mary Beth Grover

PREDICTION: When the numbers are all in, the best-performing mutual fund of 1998 will turn out to be the $14 million Internet Fund. With a 186% return as of Dec. 21, it was ahead of two competing Internet funds and well ahead of almost anything without "net" in the name.

Should you send this fund a check? Sure, subject to three conditions. (1) You don't mind the high 2% expense ratio. (2) You want your money managed by a neophyte. (3) You are pretty confident that already ludicrously priced stocks like Yahoo and Lycos will get even more ludicrously priced.

We can't predict which way this fund will go next year. Yahoo, for example, now trading at 160 times sales, just might go to 300 times sales. We can, however, be fairly confident in predicting that this fund will give you a wild ride. In one 13-week period last summer it was off 45%.



DENNIS GALANTE

Internet Fund manager Ryan Jacob
When will the sector stop clicking?

The Internet Fund, like the companies it invests in, is quite the start-up itself. It's in the hands of an unlikely triumvirate of an immigrant Russian programmer, a retired school superintendent and a young portfolio manager with all of one year's experience managing money before he came to the fund.

The programmer is 39-year-old Leonid Polyakov. He launched the no-load fund in the wake of Netscape's phenomenally successful stock offering in 1995. To save money on transfer agent fees, he wrote a computer program to price the fund daily.

Polyakov enlisted the ex-superintendent—she also is the 72-year-old mother of a friend of his—to mail prospectuses and answer the phone. Then he got Francis Alexander, an experienced 54-year-old money manager, to pick stocks. Both agreed to work for free in exchange for a piece of Polyakov's North Babylon, N.Y.-based company, Kinetics Asset Management.

Alexander later stepped aside as manager—"I couldn't come to grips with the valuations," he says—to be replaced in late 1997 by 29-year-old Ryan Jacob. Jacob had been a partner at Horizon Asset Management where he managed $10 million in private accounts and directed research for the company's *IPO Value Monitor*.

Jacob is a believer: "The world doesn't operate by the old rules anymore," he pronounces. That's how Jacob walloped two other Internet sector funds—Munder NetNet Fund, a broker-sold fund with $201 million in assets, and the www Internet Fund, a no-load with $5 million.

These funds diluted their portfolios with Internet-related stocks like Microsoft and Intel while Jacob went for pure plays. "You have to view Internet companies like venture capital companies," he says. "Traditional money managers see all the cash these guys burn through and they just laugh. But face it—I'm not going to find something trading at a discount to book value."

No kidding. But within the sector he does have strong tastes. He favors "portal" companies like Yahoo, Excite and Lycos; doesn't like "traditional" E-commerce companies like Amazon.com; and thinks that the most undervalued Internet stock is GeoCities, which helps individuals construct their own Web sites.

The table shows the past decade's hottest equity funds, year by year, and their subsequent performance. Results have been decidedly mixed.

So, you could jump in, hoping for a winning streak. Or you could do what Polyakov is evidently doing, going in the opposite direction. He is in talks to sell control of the fund to the mutual fund arm of MONY, the New York-based insurer, possibly staying on as subadviser. ■

Hot, then not

Fund	Year ranked number one	12-month total return	12-month return following year	Rank following year
Alger Fund–Small Cap-B	1989	65%	7%	33
Fidelity Select–Biotechnology	1990	44	99	2
CGM Capital Development	1991	99	17	139
Fidelity Select–Home Finance	1992	58	27	286
Lexington Strategic Investments	1993	270	11	52
Seligman Commun & Info-A	1994	35	43	155
Alger Fund–Capital Appreciation-B	1995	79	14	2,516
State St Research Global Res-A	1996	70	6	4,057
American Heritage Fund	1997	75	–66*	4,802
Internet Fund	1998	186*	?	?

*Through Dec. 21. *Source: Lipper Analytical New Appr... ns.*

Investors who jump into the previous year's top fund are often disappointed. Above, the past decade's results.

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MORNINGSTAR RATINGS

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Fund rated as of September 30, 1998, for the overall and 3-year period among 2,678 domestic stock funds and for the 5-year period among 1,584 domestic stock funds.

American Century's Income & Growth Fund has consistently beaten its peers, year after year. It's earned Morningstar's highest rating, ranking in the top ten percent of domestic stock funds for risk-adjusted performance. While past performance doesn't guarantee future results, this fund has ranked near the top of its class. To find out more, call American Century at **1-800-345-2021** and ask for a free prospectus.

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Edited by Joshua Levine

IDEAS

Take time for a walk, even if it leads you nowhere.

Let the fruit run down your chin

"The Sabbath is not God's way of telling you to sit back with a six-pack and the

Stop and smell the roses. It's an overamped culture's half-hearted injunction to take a five-minute pit stop while steaming hell-for-leather through the world. But what makes us think this is a new idea? It's called the Sabbath, and in case you haven't checked lately, it's the fourth commandment (think hard: there are only ten of them). "Remember the Sabbath and keep it holy."

If you need reminding, we can recommend a lovely book called *Sabbath: Restoring the Sacred Rhythm of Rest,* by Wayne Muller, to be published this year by Bantam. Muller, a graduate of the Harvard Divinity School, is an ordained minister and therapist and founder of a nonprofit organization called Bread for the Journey. He recently spoke with FORBES about the Sabbath and why putting your feet up is a moral imperative.

FORBES: Why are you making such a big deal about a little R&R?
Muller: The Sabbath is not God's way of telling you to sit back with a six-pack and the remote control. For every living thing, there is the necessity of dormancy—the deep rhythmicity of work and rest. For humans, it's the time to remember what you are, because when we don't, even when we try to do good, we do good badly.

I have a story in the book about a physician I know. When he was too tired, he ordered more tests, because he could no longer rely on his intuition. If he had had enough rest and had enough time to listen to the patient, he might order one test to confirm his initial diagnosis, but he was always right at those times.

When we're traveling at high speed, there's a subtle sense of undernourishment, because even the good things we're doing don't have time to sink in.

FORBES: How did we get so busy we have no time to think or feel?
Muller: Technology, of course, is part of the problem, but although it's tempting, you can't blame this on modern life or the free market. It was a problem when the commandments were written, otherwise there would have been no need to write a commandment about it. Every spiritual tradition—Judaism, Christiani-

ty, Buddhism, Islam—has a Sabbath tradition. It's universal. But at the same time, there's no question that some time after the Second World War, buying things became more important than what we did with our free time.

FORBES: So we started filling our free time with busyness.
Muller: It is very serious. We've gotten to the point where the only culturally accepted reason to stop entirely is when we get sick. Cancer has become our sabbatical. I talk to people with cancer and I get mixed signals: They say, "I hurt, I feel awful, but finally I can rest." That's a terrible thing. We have forgotten the Sabbath.

FORBES: What advice do you have for the Sabbath-impaired?
Muller: Start small—too much at one time and you get the bends. Take a Sabbath hour, or even a half hour. Take a walk somewhere away from work—a walk with no purpose. The wisdom of the Sabbath is that it's useless, and it's designed to be useless. Its sole purpose is delight. Let the fruit of the peach run down your chin.

FORBES: Now, just hold on, did you just say what we thought you said?
Muller: Let the fruit of the peach run down your chin.

FORBES: We'll try. –J.L.

■ LIFE SAVOR

In its heyday, Jack's was a monument to the corpulent aesthetic of Gilded Age capitalism. After a loving restoration, it still is.

Jack's back

By Alan Farnham

There was no one actually named "Jack" associated with the landmark San Francisco eatery called Jack's. It was so named because when Jack's opened its doors in 1864, the primary residents of what became San Francisco's ultrasnooty Nob Hill were jackrabbits.

Some years later Alfred Hitchcock and a local real estate magnate named Louis Lurie concocted the first mimosa at Jack's, hitting on the winning combination of champagne and orange juice after first drinking their way through many a false start.

Jack's is back, lovingly restored to its fin de siècle glory with the help of $2.5 million. The sconces in the ground-floor room have been re-gilded, almost blindingly. Just redoing the walls cost the new owners $100,000. If you're passing through San Francisco, you might want to peek in.

Everything about Jack's is a throwback to the corpulent aesthetic of Gilded Age capitalism. San Francisco's storied railroad and mining moguls—Stanford, Hearst, Fair, Flood and Huntington—were Jack's regulars. Private quarters in the warren of little rooms upstairs were for the type of squab, champagne and hanky-panky assignations implied by the expression "a hot bird and a cold bottle." In recognition of changed times, these have been replaced by one large party room. People now do their hanky-panky elsewhere.

Much of the menu, however, remains as politically and gastronomically incorrect as it was in Jack's heyday. Mock turtle soup is made not from turtles but from a whole simmered cow's head. It came out redolent with sherry. The mutton chop arrived soon after, a good-size hunk of sheep. At Jack's, enough is rarely enough. So the meat came smeared with onion marmalade and served with a lamb kidney: The rich pungency of the organ nicely offset the sweetness of the onion. Jack's idea of a light salad combines pears, hazelnuts and a good smelly blue cheese. Delicious.

Everything about Jack's reeks of

ERIC WALLETTE

Alas, the private rooms for squab, bubbly and hanky-panky are only a memory.

Just like old times.

LEE MILLER

GOING, GOING, GONE

Selling the Silver

BACK IN 1895 James Gordon Bennett paid Tiffany & Co. the astronomical sum of $2,500 for this 3-foot long, 1.5-foot high, 47-pound silver punch bowl. Bennett, whose father founded the *New York Herald* newspaper, was a great sportsman and first-class lout. At his engagement party he challenged his future brother-in-law to a duel, a fight precipitated by Bennett's relieving himself into the piano. He redeemed his reputation among the swells by bringing polo to the U.S., building the first competition tennis courts and giving away expensive baubles like the Tiffany cup as first prize in a yacht race he named for himself.

Easy come, easy go.

SOTHEBY'S NEW YORK

The James Gordon Bennett Cup has lost none of its aura of Gilded Age excess. It fetched $145,000 at Sotheby's on Dec. 15 when sold to help pay the heroic debts of another flamboyant sportsman.

Victor Niederhoffer won the U.S. national squash championship five times. He also lost more than $10 million when the tanking Thai stock market wiped out his highly leveraged hedge fund in October 1997. The 55-year-old trader, who still brags that his favorite newspaper is the *National Enquirer*, was forced to dismantle a lifestyle worthy of well, James Gordon Bennett. So under the gavel went Niederhoffer's prized collection of rare trophies and presentation silver. The silver collection brought almost $3 million—a sizable chunk of which Niederhoffer had prevailed upon Sotheby's to advance him.

When the current Internet stock bubble bursts, we suspect Sotheby's will have a lot of other such treasure troves to liquidate. –ROBERT GOF

tradition—even the ownership. Gus Konstin was a waiter at the old Jack's for 12 years. He saved enough to buy another San Francisco restaurant and prospered. When Jack Redinger, the fifth proprietor of Jack's, put the joint up for sale in 1996, Gus and his son, John, bought his dad's old employer We'll hoist a bowl of mock turtle soup to that!

RE-VIEWING

Again and again

EVERETT COLLECTION

KENNETH BRANAGH and Emma Thompson once seemed destined to reign as the king and queen of Tinseltown. The Brit twosome met playing lovestruck young marrieds in the BBC's *Fortunes of War* miniseries in 1987. Of course they married off the set, and collaborated in Branagh's next four big-screen productions before splitting in 1996. This month you can catch Branagh in *The Theory of Flight* and Thompson in *Judas Kiss*, but the two were at their best in those early days when they looked like a second coming of Tracy and Hepburn.

Watch *Dead Again*, a 1991 mystery that works better in the living room than on the big screen. The over-the-top plot interweaves two mysteries: the first, an unsolved 1940s society murder, casts Branagh as a mad opera composer and Thompson as his beautiful bride; the second makes Branagh a modern-day Los Angeles gumshoe and Thompson a woman whose nightmares leave her mute and amnesiac.

Branagh and Thompson, still in the bloom of their early love, project a genuine chemistry. The supporting cast is first-class, too. Look for a riotous (and uncredited) Robin Williams as a foul-mouthed ex-shrink-turned-grocery-clerk. Derek Jacobi is also fine as an antiques dealer with a slight stutter, an impediment that recalls his bravura performance as the Emperor in *I, Claudius*.

To Branagh, Jacobi is more than just a fellow actor. After seeing Jacobi play Hamlet, the 15-year-old Branagh was inspired to study Shakespeare and follow the same path. Branagh slyly inserts arcane references to the Bard throughout *Dead Again*: A prison uniform bears the date 25101415—the date of Henry V's Battle of Agincourt. And yes, that's Laurence Olivier as Hamlet on the cover of a 1948 *Life* magazine. As for the film's chase scene, it just happens to take place on L.A.'s Shakespeare Bridge.

Dead Again does tend to pile it on a bit thick, and the plot gets more than a little confusing along the way, but that's why the rewind button was invented. It's good exuberant fun from the all-too-brief heyday of a great movie couple. Even if you've seen it before, this is one flick that's worth watching again. –BEN PAPPAS

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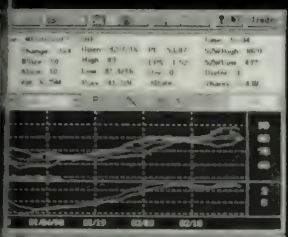

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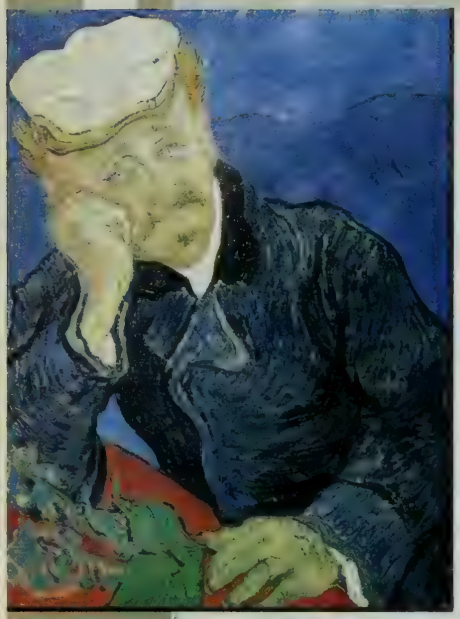
Thoughts on the business of life

Optimism is a tonic. Pessimism is poison. Admittedly, every businessman must be realistic. He must gather fac analyze them candidly and strive to draw logical conclusions, whether favorable or unfavorable. He must not engage in self-delusion. He must not view everything through rose-colored glasses. Granting this, the incontes truth is that America has been built up by optimists, not by pessimists, but by men possessing courage, confid in the nation's destiny, by men willing to adventure, to shoulder risks terrifying to the timid. –B.C. Forbes



A man's heart changes his countenance, either for good or evil.
Ecclesiasticus 13:25

Reason guides but a small part of man, and that the least interesting. The rest obeys feeling, true or false, and passion, good or bad.
Joseph Roux

Man is, and always was, a block-head and dullard, much readier to feel and digest than to think and consider.
Thomas Carlyle

The young man who has not wept is a savage, and the old man who will not laugh is a fool.
George Santayana

The only questions worth asking are whether humans are going to have any emotions tomorrow, and what the quality of life is going to be if the answer is no.
Lester Bangs

All the knowledge I possess anyone else can acquire, but my heart is all my own.
Goethe

One ought to hold on to one's heart; for if one lets go, one soon loses control of the head too.
Nietzsche

Those who would make us feel must feel themselves.
Charles Churchill

The advantage of the emotions is that they lead us astray.
Oscar Wilde

We know too much and feel too little, at least too little of those creative emotions from which a good life springs.
Bertrand Russell

Our emotions are only "incidents" in the effort to keep day and night together.
T.S. Eliot

The heart errs like the head; its errors are not any the less fatal, and we have more trouble getting free of them because of their sweetness.
Anatole France

There are strings in the human heart that had better not be vibrated.
Charles Dickens

Nowhere is there more true feeling, and worse taste, than in a churchyard.
Benjamin Jowett

The hardest thing in the world is to put feeling, deep feeling, into words.
Jack London

Men live by intervals of reason under the sovereignty of caprice and passion.
Thomas Browne

The head does not know how to play the part of the heart for too long.
La Rochefoucauld

A Text . . .

There hath no temptation taken you but such as is common to man: but God is faithful, who will not suffer you to be tempted above that ye are able
–I Corinthians 10:13

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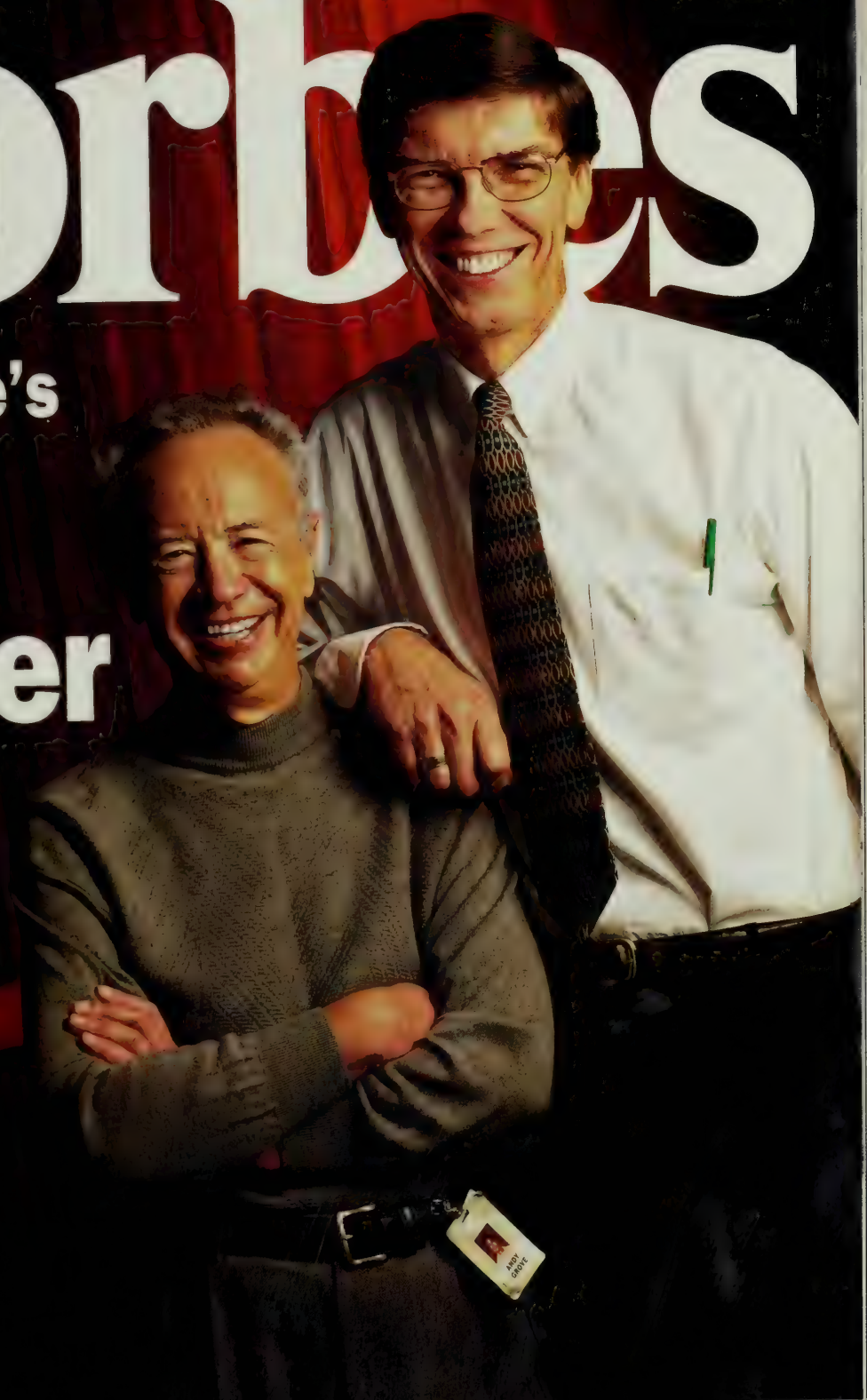

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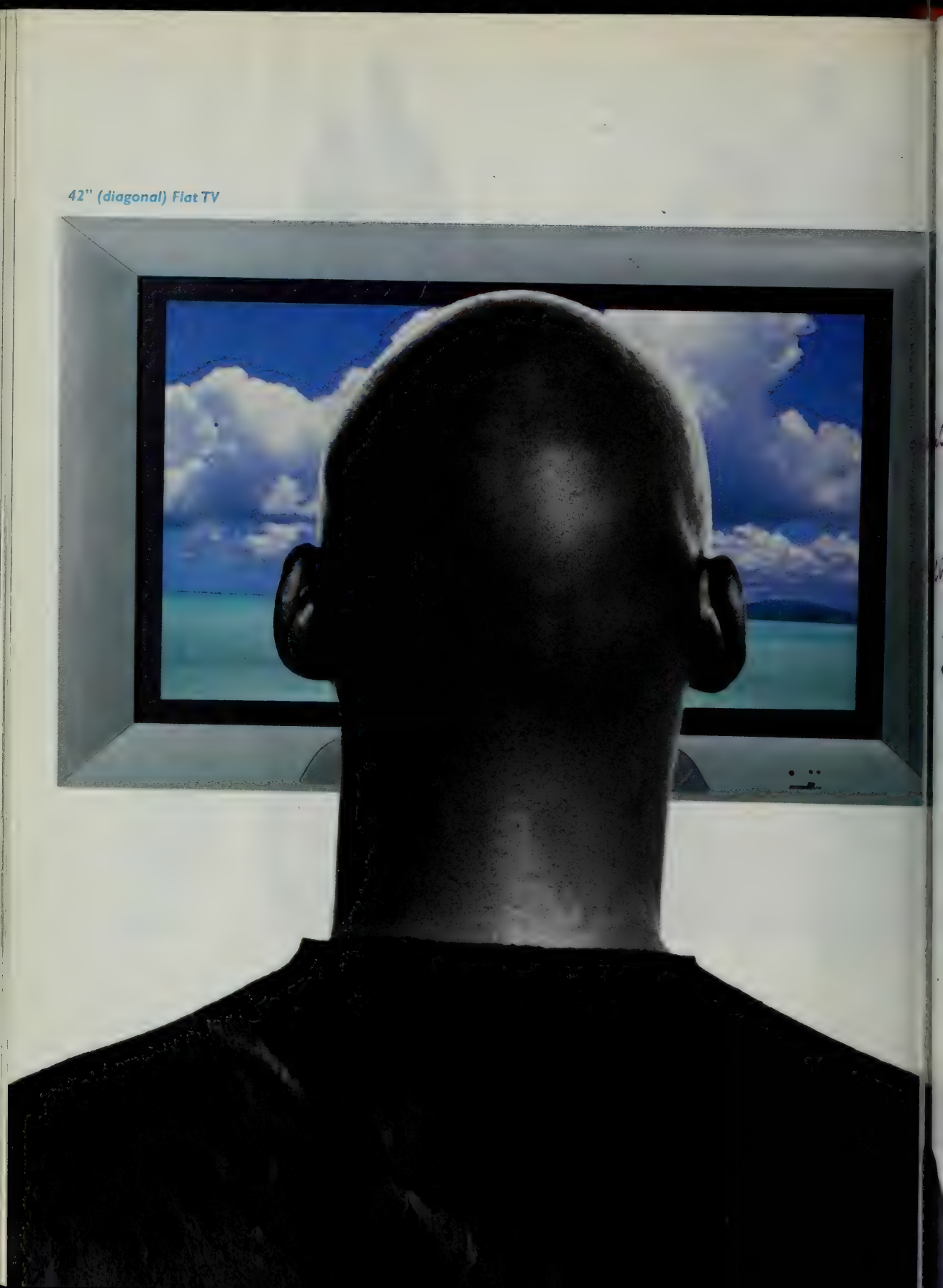

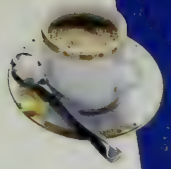

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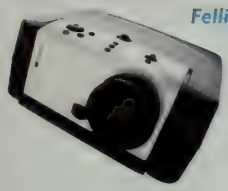

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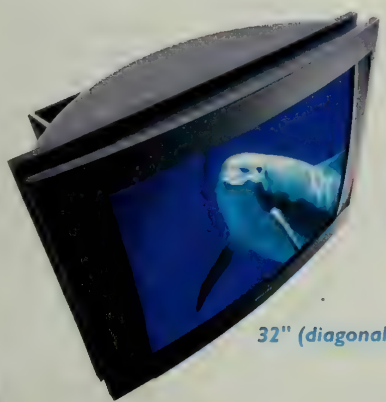

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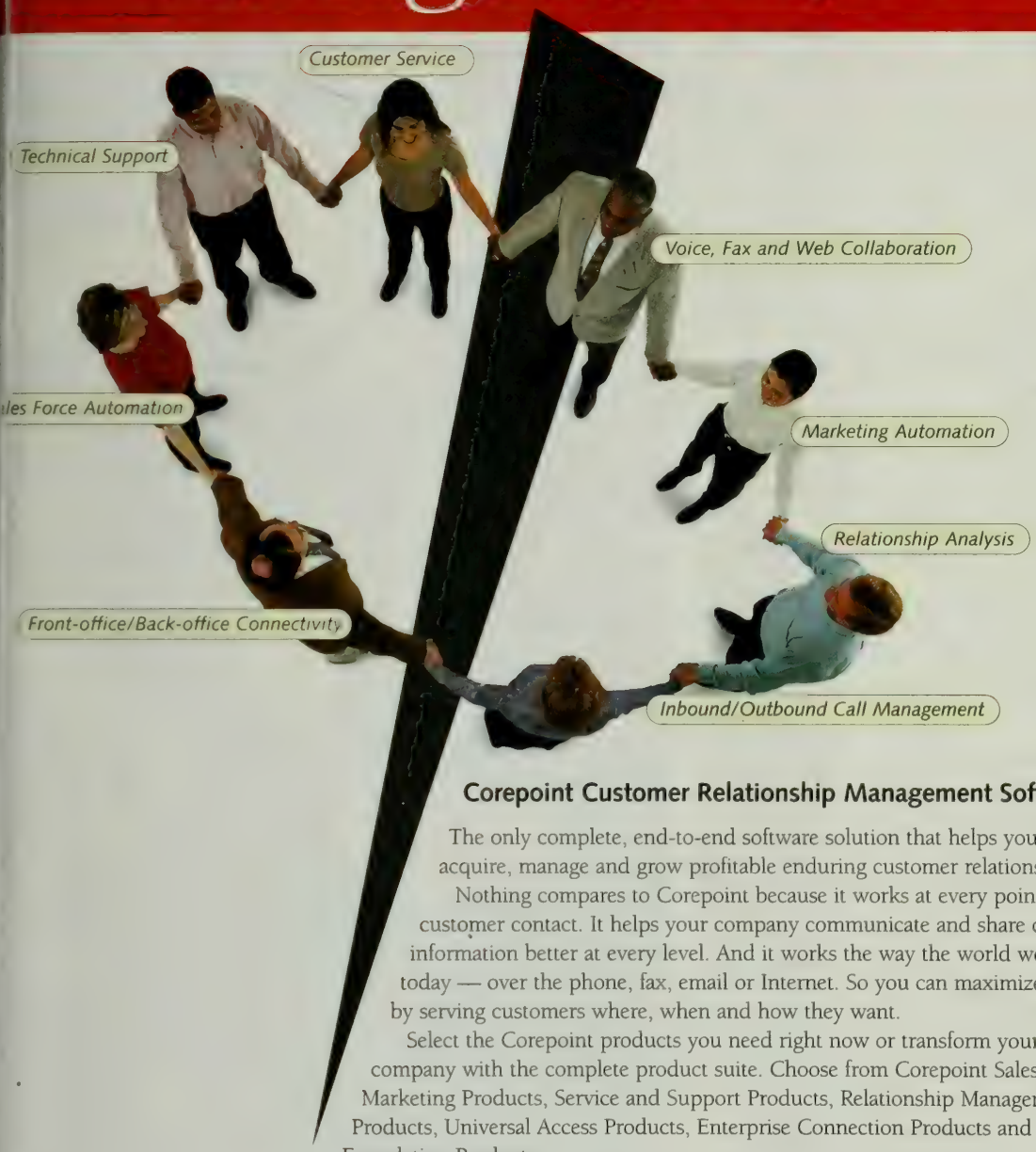

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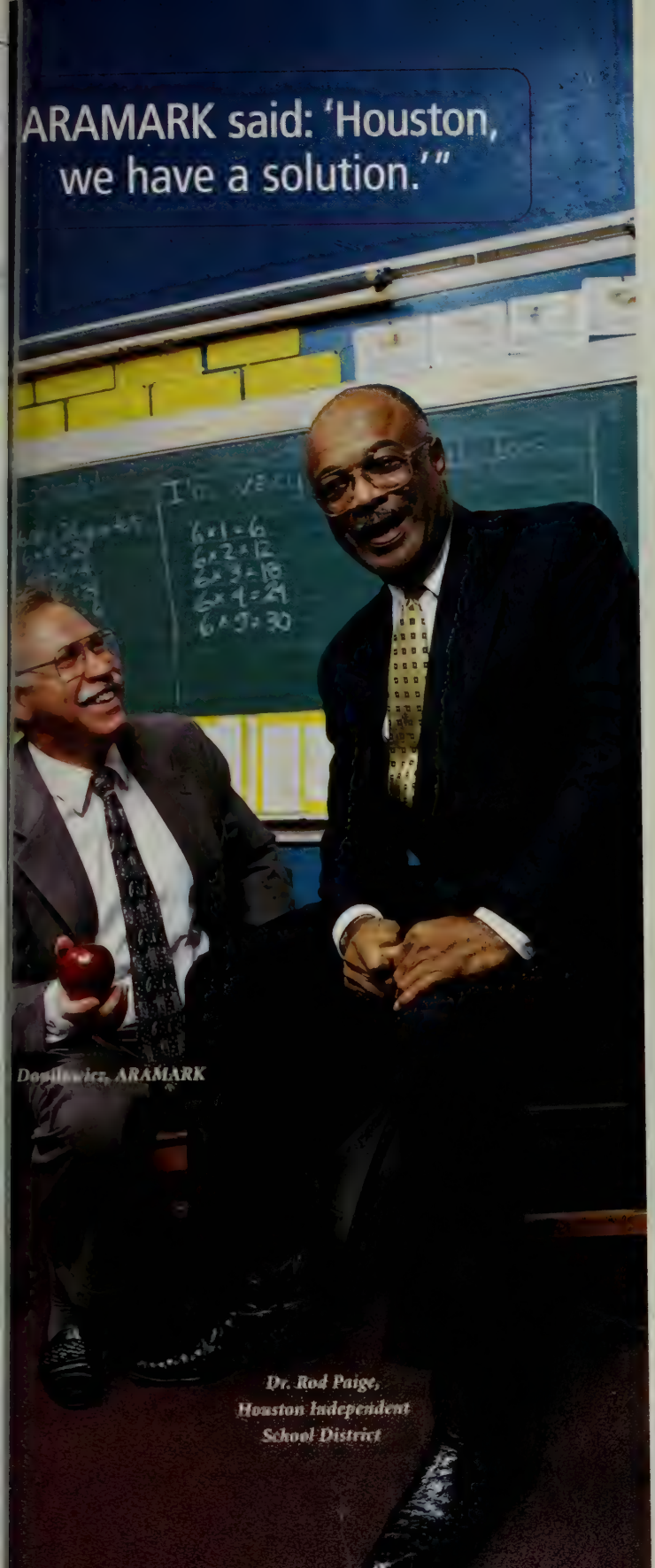

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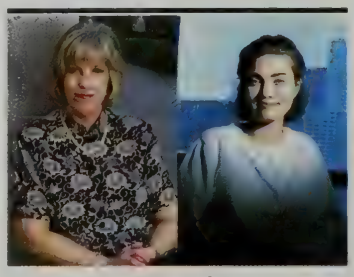
Technology and hubris

SOME YEARS AGO I was the proud owner of a Pickett slide rule. It sure seemed high-tech to me, what with that fancy log-log sca and all. But one day everybody got electronic calculators, and t slide rule business disappeared. Probably a lot of people we thrown out of work.

Why is it that some companies are crushed by technologic change while others adapt to it? You might think it's because t losers are blindsided—they simply don't know anything about t new technology. Clayton Christensen, an imaginative thinker at t Harvard Business School, has a different theory. He says the lose often see the new technolo but are contemptuous of i Products using the new tec nology tend to start out at t low end of the market or n work very well at first. Indee the forerunner of the calcul tor was a clunky deskto adding machine that was n match for a slide rule when came to doing things lik compound growth rates.



JENNIFER BINDER

Toni Mack and Mary Summers

If you are in a business th is, or might ever be, threa ened by technological change, read "Danger: stealth attack" *(p. 88)*, an analysis of the Christensen theory by Toni Mack and Mar Summers of our Southwest Bureau.

And if you know what became of the Pickett slide rule compan e-mail me at editor@forbes.com.

The truth about bonds

WHEN YOU DO A STOCK TRADE, you know just what you paid th seller and just what you paid in commission. Not so in a bon trade, where your confirmation ticket quotes a net price that keep the middleman's markup hidden.

A little more transparency would do wonders for fixed-incom investors. It's coming. Marilyn Cohen, a bond portfoli manager for 20 years and a FORBES columnist for 2, explains hov on page 100.

This bubble is different

YOU CAN'T HAVE WITNESSED the frenzy in Internet stocks withou wondering if this stock market bubble isn't just like 1929. It's dif ferent, says Matthew Schifrin, coauthor of "Amateur hour on Wal Street" *(p. 82)*. This time around, ordinary investors have new tool at their disposal—data feeds and microprocessors just as powerfu as those available only to a Wall Street pro a few years ago. This fancy gear has convinced a mass of on-line traders that they can al make huge returns, year after year, and retire young. Somebody is in for an unpleasant awakening.

William Baldwin

Editor

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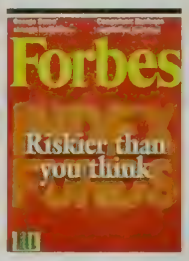
Follow through

Edited by Susan Adams

Index mania

AT A TIME WHEN INVESTORS were pumping money into S&P 500 index funds, FORBES issued a warning to steer clear *(Apr. 7, 1997)*. Our concern: The index was so skewed toward a handful of large-cap growth stocks, like Coca-Cola and Microsoft that the 500 was beginning to resemble a modern-day Nifty Fifty. If you must buy an index fund, we said, go for a broader fund tracking the Wilshire 5000.



Bad advice so far. Since then Vanguard's Index 500 is up 60%, while its Wilshire-like Total Stock Market Portfolio is up 52%. The S&P 500 even bested another form of index investing that we wrote about, the Smith Breeden Equity Plus Fund *(Nov. 3, 1997)*. This fund makes side bets on mortgage securities to soup up a portfolio that otherwise mirrors the index. Since our story, the fund has lagged the S&P 500 by more than three points.

–DOLLY SETTON

Hot rod

WHEN FORBES EXAMINED Petersen Publishing *(Sept. 22, 1997)* just before its initial public offering, we cautioned that the company was highly leveraged and overvalued. The market agreed with us. After the story appeared, underwriters cut the offering size by 29%, to $123 million.

But Chief Executive James D. Dunning Jr. and Vice Chairman D. Claeys Bahrenburg know how to expand a magazine empire. They added 54 new titles to a roster that included *Hot Rod*, *Teen* and *Guns & Ammo*. At the same time, advertisers were hungering for ever-more-specific target audiences—just what Petersen offered.

On Dec. 15 London-based publisher EMAP Plc. agreed to acquire Petersen for $1.2 billion in cash plus the assumption of $300 million in debt. Petersen shareholders will receive $34 a share in cash, a 45% premium above the predeal price and nearly double the initial offering price of $17.50.

–SCOTT MCCORMACK

FLASHBACKS

70 years ago in Forbe

January 15, 19

[A merchant] in the woolen business has t
phrase "Guaranteed Woolens" emblazon
in gold on the walls of his establishme
Asked the meaning and the significance
his glittering guarantee, he said, "Well,
course, I don't guarantee anything specif
. . . But that word 'Guarantee' tastes awfu
sweet to a lot of people and my custome
like it. It seems to help r
sell goods

30 years ago in Forbe

February 1, 19

Not just junk: Five years ago parts of th
rusting pile in a field near Boulder, Col

were the last word in IBM computi
equipment. Then came the 360. Had IB
dumped this equipment on the second-han
market, it would have put pressure on 36
prices and profits. So it was junked. Thing
will be quite different in the future. Toda
the computer leasing companies own seve
al thousand 360s, out of which they wi
wring every possible cent, slashing price
if necessary to do it. Which will bring th
computer industry its first real price-cutting

February 1, 196

Friedrich Flick is the wealthiest man i
West Germany. His personal holdings ar
estimated at $750 million. He runs hi
empire [330 companies] with a staff tha
would make the head of any U.S. conglom
erate look around in horror and say, "Wher
is everybody?" Directly under him are fiv
managing partners. They are the financ
men. Under them are about 20 to
executives who oversee the empire'
day-to-day operations. And that
plus clericals, is all. Flick can get alon
with such a small staff because he give
the men who run the companies almos
complete freedom. Says Otto A. Friedrich
a managing partner: "Flick has alway
looked for persons who could ru
a company on their own.
–Edited by Dolores Latanioti

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you@golfcart.com

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you@sandtrap.com

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**Estimated annual after-tax cost of ownership (500 occupied hours over five years) in a Learjet 31A. Cond

We've got mail

FORBES WARNED two years ago *(Ja 13, 1997)* that old e-mails and recc ered computer files could turn in court evidence. A good call—just a e-mail addicts Bill Gates and Moni Lewinsky.

John Jessen, president of Seattl based Electronic Evidence Discover says his business helping litigants di cover legal evidence doubled 1997, and doubled again in 199 He also has a sideline doing "risi management" audits. In thes Jessen's troops sample e-mail, lectu employees to be circumspect abo what they put into mail and inst procedures and software programs t make sure that the files comput users dump in the trash are real gone from their hard drives.

–JANET NOVAC

The Bloomsbury group

TWO YEARS AGO we said London Bloomsbury Publishing Plc. was comer *(Jan. 27, 1997)*. This ten-year old book publisher had only $20 mil lion in sales but a roster of majo league authors like Nadine Gordime and John Irving. Bloomsbury i indeed going places. It recentl

Bloomsbury founder **Nigel Newton**

announced a multiproject deal with Microsoft that will include publish- ing the *Encarta World English Dic- tionary* as a book and CD-ROM in August. Warner Bros. just bought the film rights to one of Blooms- bury's juvenile bestsellers, J.K. Rowling's *Harry Potter and the Chamber of Secrets.* Since our story, the company's shares, traded on the London Stock Exchange, are up 100%, to the equivalent of $2.75.

–RICHARD C. MORAIS

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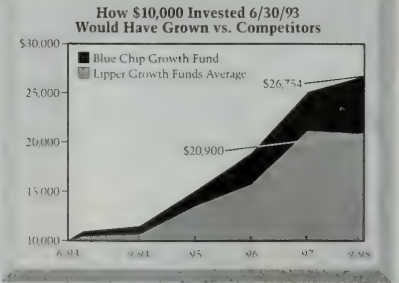

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6.39%, 19.61%, and **20.61%** are the fund's average annual total returns for the 1-year, 5-year, and since inception (6/30/93) periods ended 9/30/98, respectively. Figures include changes in principal value, reinvested dividends, and capital gain distributions. Investment return and principal value will vary, and shares may be worth more or less at redemption than at original purchase. (Source for Lipper data: Lipper, Inc.)
Read the prospectus carefully before investing. T. Rowe Price Investment Services, Inc., Distributor BC-GO46085

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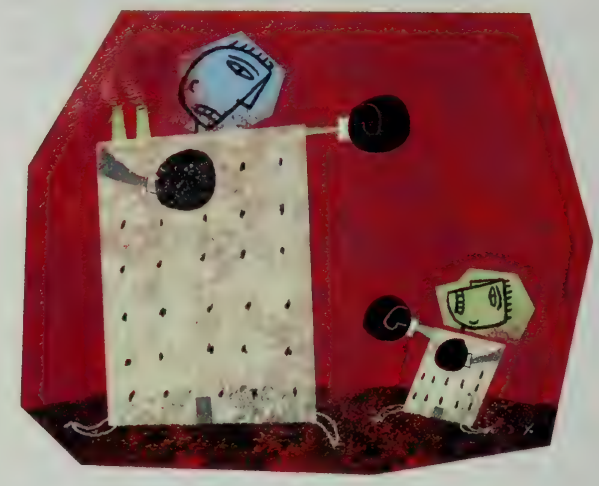
Storm chasers

By Katherine Bruce with Colleen Mastony



Nietzsche wrote of people "who, on the approach of severe pain, hear the very opposite call of command, and never appear more proud, more martial or more happy than when the storm is brewing." If you want to fly into a storm, start a company and try competing with a behemoth like Microsoft. These business creators are doing just that.

"[Bill] Gates was once a barbarian. So there is every reason to believe that barbarians can become huge."

Jean-Louis Gassée, founder/chief executive, Be Inc.

Jean-Louis Gassée
Founder/chief executive
Be Inc.
Created BeOS, a computer operating system that competes with Microsoft's Windows on PCs.

Competing against a huge company is like a battle between emperors and barbarians. Barbarians start at the edge of the empire and create little nations, and band together. And one day they walk into Rome. Gates was once a barbarian. So there is every reason to believe that barbarians can become huge.

But you should not make a direct attack. We are not doing what IBM foolishly tried to do when it came out with OS/2 saying: "OS/2 is better DOS than DOS; better Windows than Windows." Microsoft was so entrenched that a direct attack against its fortress was doomed.

With this in mind, we looked at where Windows is less adept. It suffers from architectural limitations in the emerging digital media market. So instead of challenging Windows in its stronghold—the office productivity market—we created the best system for digital media. So in a sense we don't challenge but complement Windows. We survive because we are not really a threat.

Deborah Rosado Shaw
Founder/chief executive
Umbrellas Plus
Imports outdoor furniture and fashion accessories, competing with Sunbeam Corp., Bemis Company, Inc. and Sara Lee Corp.'s Aris Isotoner.

For a Hispanic woman getting from the South Bronx to being a self-made millionaire took a lot of breaking of the rules. I had to find a game that only I could win. So I started writing articles in trade publications about how important it was for business to build alliances in the Hispanic community, since we are going to be one out of four Americans pretty soon. And suddenly Wal-Mart called and asked: "Who are you? We want to do business with you."

I think it's fair—all along I have been looking in on the outside. You don't have to like how I got the goods into the marketplace. The consumer is the final judge.

Keith Cooper
Cofounder/chief executive
FaxNet Corp.
Provides Internet faxing services to telephone companies, competes with AT&T, MCI and Xpedite Systems Inc.

We identified the single competitor in providing Internet faxing services to telecommunications companies, which was Computer Sciences Corp. Then we found out their client list and what they were offering. We saw that we could do a better job for a cheaper price. So we began knocking on the door of their biggest customer, U S West.

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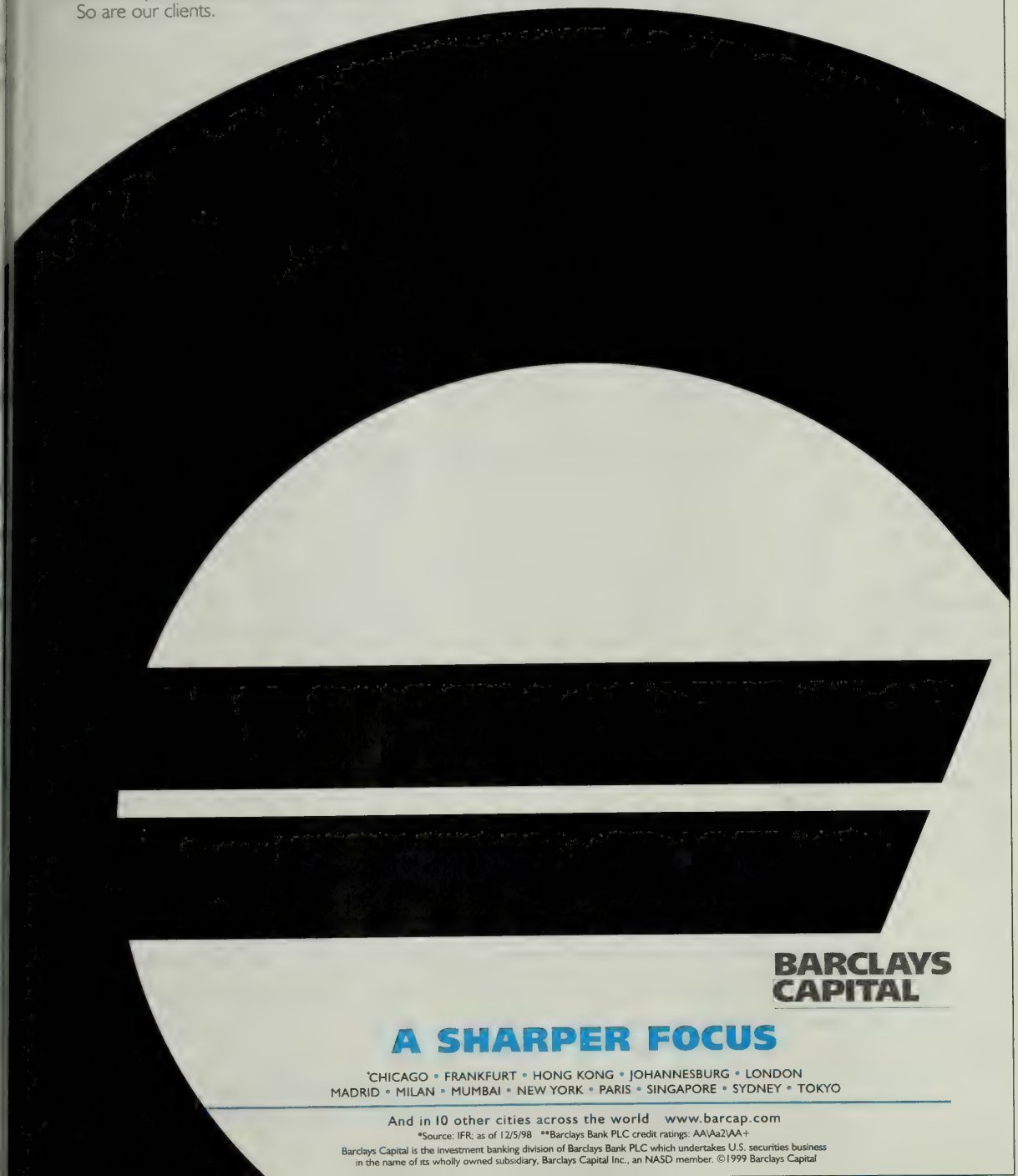

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*Source: IFR; as of 12/5/98 **Barclays Bank PLC credit ratings: AA\Aa2\AA+

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For CSC, Internet faxing was not even a rounding error in the overall scope of their business. I don't think anyone from CSC had really sat down with anyone at U S West to find out how to make their lives easier. We made sure to tell U S West that Internet faxing was our life. We also told the employees of CSC's Internet faxing division what it would be like to work for an entrepreneurial company like ours, and have equity in it.

U S West decided to give us a shot. Once CSC saw us take U S West away from them, their business wasn't really viable. So they sold us the servicing division and got out of the business.

James Sandusky
Founder/chief executive
NicSand Inc.
Manufactures sandpaper, standing up to 3M and Saint-Gobain Group's Norton Abrasives.

Fashions change, foods change, clothes change. To be successful in the world, you have to change. And yet the abrasives industry used to be controlled by two large companies—3M and Norton, which made little to no investments in change.

So after receiving a patent for a Velcro-type hook and loop fastening for sandpaper, I started my company in the early 1980s. Hook and loop fastening is much superior to the way sandpaper was fastened to power tools before. But 3M was two feet behind me telling every one of my customers that my product wouldn't work. Once they saw that it worked, they started copying us. We have to stay ahead of them by offering innovative items. We introduce about 145 new retail products per year.

It's always personal to me. The chairman of 3M won't go hungry if he doesn't sell to AutoZone, but I will. I make funny faces when I drive by a 3M facility.

"It's always personal to me. The chairman of 3M won't go hungry if he doesn't sell to AutoZone, but I will."

James Sandusky, founder, NicSand Inc.

Christos M. Cotsakos
President/chief executive
E*Trade
Competes with brokerage houses that have a lot more capital (see related story, p. 82).

Traditional financial institutions are passé. They see the consumer as being dumb and needing all this hand-holding. Our view is that you are smart, so we will just give you the tools and charge you a lot less for them.

It's like with the Cadillac. It's a great car, but I probably wouldn't be caught dead riding in one. The average age of a Merrill Lynch customer is 55. The average age of our consumer is between 35 and 45. We a the future.

Andrew Stenzler
Co-CEO/chairman
Xando Inc.
Competes with Starbucks Corp.

Even though Starbucks is our main competitor, it's also the reason for our existence. Starbucks' brand has become so ubiquitous that it creates opportunity for us.

Starbucks is going to become one of the biggest brands in the world, but they won't be able to touch all corners of the earth. Also people start comparing them to an enormou chain, like McDonald's, and demand a choic Here comes Xando.

Jake Burton Carpenter
Founder/owner
Burton Snowboards
Competitors: Rossignol Ski Co. and Salomon Sports.

When I was starting my company [in 1977], skiing had become a very elitist sport. Skiing magazines talked about fancy roof racks and gourmet foods in ski resorts. A lot of the executives who were running ski companies lost sight of the essence of the sport. They were playing golf and not immersing themselves in the sport that made them rich.

They gave snowboarders an opening for making a new sport popular. We put the emphasis back on youth. If you pick up a snowboarding magazine, it's all about action. I snowboard about 100 days a year.

David McCourt
Chief executive
RCN Corp.
Competes with Bell Atlantic, Time Warner and AT&T.

We're challenging the incumbents. I know we can beat them. Whenever there is a sea change, like with the Internet now, the incumbent never remains dominant. Success breeds success formulas; success formulas breed failure. Big companies have it down to a formula. They have policies and procedures for everything, and they can hire average people and still do well because it's like a well-oiled machine. And the bigger they get, the more average the employees get, and eventually they become drones.

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It looks nothing at all like its lege

C-300

300B

300C

300D

300E

300F

300G

300H

300J

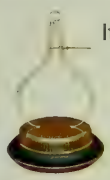
300K

300L

In its June 1955 issue, **Motor Trend** *said of the then new Chrysler C-300,*
"The sounds, the feel, the looks of it set it pretty much apart from the run-of-th
Detroit product. You're not in an ordinary vehicle when you're in the 300."

*Base MSRP includes destination. Tax and options extra.

However, the judges immediately recognized it.



It's quite different from its famous forebears. But in spirit it is very much the same kind of car. Chrysler 300M. From one of the most powerful

Motor Trend 1999 Car of the Year.

racing legacies ever. And now *Motor Trend* 1999 Car of the Year. Said *Motor Trend*: "There's certainly a powerful spiritual relationship between those legendary engineering marvels and this fresh sport sedan with its precise handling, balanced power and economy, unmatched interior room, and pace-setting shape." Small wonder. 300M dominates its peers as only its ancestors could. With the most horsepower, most torque and the widest stance in its class. Powered by an all-aluminum high-output 3.5 liter V6 engine, 300M also boasts dual-mode AutoStick® that allows you to switch out of automatic to manual control. Luxuries include leather-trimmed seats and two-driver memory settings for the driver's seat, outside mirrors and radio. Priced at $29,545, fully equipped.* Info? Call us at 1.800.CHRYSLER. Or visit www.chryslercars.com. The Chrysler 300M. We are sure you'll easily recognize it.

CHRYSLER 300M

readers@forbes.com

Family feud

SIR: Re "Who needs family-friendly companies?" *(Jan. 11, p. 72)*. I don't have children, my company has family-friendly policies, and I am very grateful. They help me recruit and retain the best and the brightest. If I occasionally have to cover for someone who's going to a PTA meeting, that's my contribution to raising the next generation.
–LAURA PEEBLES
Arlington, Va.

COLIN JOHNSON

SIR: You assert that family-friendly companies serve only the interest of women with children, pressured by "the women's movement." Since when has child care been exclusively the responsibility of women?
–GLENN ROBERTS
Houston, Tex.

Dodging a tax trap

SIR: Re "Employer stock tax trap" *(Nov. 30, 1998, p. 356)*. Wow! Many thanks. I can save enough with this info to pay my FORBES subscription for the next hundred years, plus buy a car or two. I'd appreciate it if you could tell me where I could find this specific tax information in the IRS' literature.
–DAVID BOON
Lanham, Md.

Check out IRS Publication 575, "Pension and Annuity Income."–ED.

Adults only

SIR: Re "The tyranny of the diploma" *(Dec. 28, 1998, p. 104)*. You've done your readers a disservice. The one thing all of your subjects had in common was an original idea that came at the right time. How many 17-year-olds have that? Your description of the dropouts' financing was sketchy, and there was little thought given to the "what ifs" of failure. This issue should be placed on the top shelf of magazine stands—out of the view of children.
–GEORGE KREBS
Howell, N.J.

Poor planning

SIR: Wish that I had read your article on Suze Orman ("Sizzling Suze," *Dec. 28, 1998, p. 118*) before buying her disappointing book.
–TOM MURPHY
Columbus, Ohio.

Carried away

SIR: Re "Continental Hero" *(Dec. 28, 1998, p. 31)*. It is nice to find a chief executive of a major airline who is actually interested in serving the customer. I find it interesting that the airline industry has reframed the argument about the size of carry-on luggage as a safety issue when it is really a service issue. Until baggage service is improved, I want to put my luggage in the same place the crew stores theirs—the overhead bins.
–STEVEN B. SMITH
Sanibel Island, Fla.

Your crystal ball is cracked

SIR: Re "2039" *(Dec. 28, 1998, p. 22)*. Your article on chief executive predictions reminds me of what the seers were saying in 1960, when I joined the work force. My employer hired a futurist who told us that by 1980 our biggest problem would be how best to use our discretionary time. It hasn't worked out that way. Then in the 1980s the prognosticators said that we would have a paperless office by the early 1990s. It is almost the millennium, and the paperless office is about as close as the paperless toilet.
–EDWARD C. MCMANUS
Marlborough, Mass.

SIR: If Continental Chief Executive Gordon Bethune really cared about service, he would make sure that his baggage service was up to par, so that more passengers would avail themselves of that and reject the "self service" carry-on baggage arrangement.
–JEFFREY BEECH
Thibodaux, La.

No bargain

SIR: Re "When costly insurance makes sense" *(Dec. 14, 1998, p. 252)*. The actuaries know something you don't. The 50-year-old man who can qualify for the cheap term policy is probably going to live past your example of age 77. Check your comparison after age 80, when most of these people will die. The "costly" insurance looks even better.
–JOHN A. CRAWFORD
District Agent, Northwestern Mutual Life Insurance Co.
Norcross, Ga.

Smart PC or fender-bender?

SIR: Re "Compute while you're driving" *(Jan. 11, p. 112)*. You seemed impressed by the possibilities of the Clarion AutoPC, but you've overlooked the potential for traffic

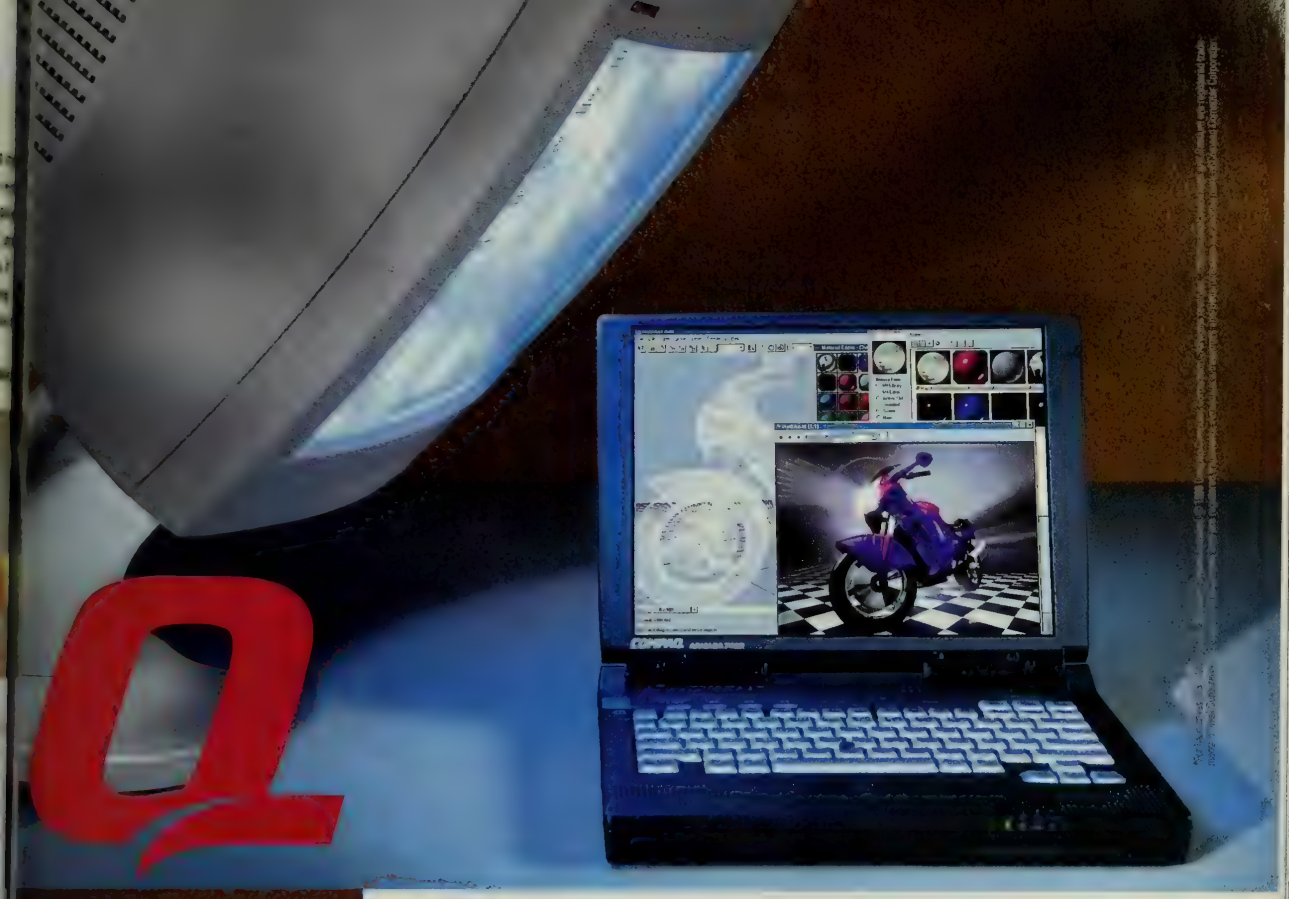
mishaps. The picture you ran with the story illustrates my point: The device clearly needs considerable attention from the driver. I'm sure that some people can handle any technology while on the road, and some can't. It's the process of sorting those individuals out that frightens me.
–AARON WOODIN
White Plains, N.Y.

Accountable

We misidentified the chief accountant of the Securities & Exchange Commission *(Jan. 11, p. 43)*. It's Lynn Turner. ■

Clarion AutoPC
Commuting and computing.

Letters should include the author's address and phone number.



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"With all thy getting get understanding"

Fact and Comment

By Steve Forbes, *Editor-in-Chief*

THE COMPUTER ATE MY TUITION

Will Education Department computers that administer financial aid for millions of college students still function in 2000? The Department is apparently way behind in getting its computer hardware and software fortified against the so-called Millennium Bug: Unless replaced or adjusted, computers at the turn of the century will behave as if the numerals 00 are 1900 rather than 2000 and will possibly crash.

Countless kids could suddenly find themselves without the means to continue their higher education.

NO SURPRISE

Egyptian tablets might be oldest writing found

Discovered in the tomb of a king, line drawings concentrate on taxes

—Washington Times

OSKAR'S EXPENSIVE EDUCATION

Like so many of his peers, Germany's new finance minister, Oskar Lafontaine, doesn't get it when it comes to taxes. He recently set off an uproar by proposing that the European Union "harmonize" taxes, i.e. force low-tax Britain and Ireland to raise their levies to Germany's suffocating levels.

The world's Lafontaines cannot understand that overly-exacting exactions extinguish economic innovation and risk-taking. Why don't they ever ask why the high-tech and entrepreneurial ferment sweeping the world is almost entirely absent from Europe? Growing numbers of Europeans with the desire to create and to apply their talents to new fields end up emigrating, mostly to the U.S. Lafontaine and his ilk think economic growth is government driven. Until they see the light, or are removed from office, Euroland will increasingly become a wasteland.

AP WIDE WORLD

Oskar Lafontaine: His love of high taxes is bad news for Germany and Europe.

SHORT OF BREATH

Make no mistake, Western Europe is heading toward choppy economic waters. Its monetary authorities are deflating; that is, they're squeezing the availability of credit. German price indexes are actually negative, which is sort of like the country's windpipe being pinched. Continental economies, never robust, are increasingly gasping for breath. European banking systems are lurching toward a crisis.

GOOD NEWS

from New York—of all places—on the education front. America's third-largest state just enacted a law permitting the creation of charter schools, which can be set up by concerned teachers, parents or not-for-profit groups and are free from education-stifling, bureaucratic restrictions. These schools can devise curriculums to focus on basics rather than on passing fads. They encourage innovative teaching. Michigan has scores of successful charter schools, and North Carolina has a growing number. Last year, California expanded its charter school legislation.

Naturally, unions are fighting the idea everywhere. Governor George Pataki got the charter schools bill through the legislature by tying it to a big pay increase

that state lawmakers badly wanted.

The growing charter school movement is a heartening sign that America's parents will eventually win back control of our schools. As that happens, our country's schoo will vault from being among the worst in all the maj industrialized countries to the best.

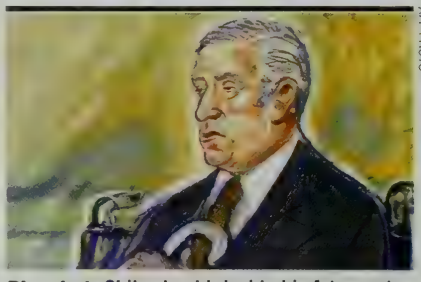
PRESIDENTIAL PERJURY MATTERS

A FEW MONTHS AGO *USA Today* reported the results of a survey taken of more than 20,000 American middle and high school students on their activities over the past year. The results were disheartening. Almost half of the high school students admitted to stealing from a store; 70% to cheating on a school exam and more than 90% to lying parents. These percentages are all higher than tho found in a similar survey in 1996.

When adult society is seen as devaluing tradition morals, is it any surprise that our children are affected?

LIKE IT OR NOT

diplomatic immunity allows designated officials—including ruthless dictators—to travel, even in unfriendly lands, without harassment or harm. The position of Chile's democratically elected and constituted government is that General Augusto Pinochet has immunity from prosecution and extradition to Spain because he is a former head of state. Britain's House of Lords should reconsider its decision to allow Pinochet to be extradited by the Labour government to Spain to stand trial for "crimes against humanity." The extradition request for Chile's former strongman didn't even originate with the Spanish government; it was instigated by a maverick judge on a private crusade.



AFP PHOTO

Pinochet: Chile should decide his fate—not headline-hunting Europeans.

By British logic, we should be ready to arrest Fidel Castro the next time he leaves Cuba. His crimes against humanity vastly exceed those committed by Pinochet. Argentinean judges could issue extradition orders to British generals and admirals for their role in the Falklands war. Yasir Arafat would certainly warrant arrest many times over. Numerous other government officials around the world would be vulnerable, too.

London's move against Pinochet was not the culmination of any carefully thought-out ideas to revise centuries-old traditions of diplomatic immunity. Rather, the Labour regime figured it would be an easy way to appease left-wing supporters who hate Pinochet for thwarting a Communist takeover of Chile in the early 1970s and who are disgruntled by Labour's lack of traditional socialist fervor.

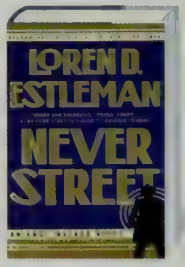
Britain is also ignoring the delicate arrangement Chileans have made to move from a military dictatorship to the democracy it is enjoying today. Pinochet put the fate of his regime up to a plebiscite several years ago, with the explicit understanding that if he lost (which he did), he could control the armed forces for several years and thereafter, enjoy full diplomatic immunity.

And Spain? A couple of generations ago numerous judges around the world would have loved to issue warrants against Francisco Franco. Following the Spanish Civil War (1936–39), the victorious Franco executed some 250,000 of his countrymen, and continued his iron-fisted rule for nearly 40 years. It took Spain several years after Franco's death in 1975 to become a full-fledged democracy. As with Chile, the understanding was that the past is past; we must work for the future.

The future of Pinochet, who has blood on his hands, is a matter for Chileans, not for grandstanding British politicians or self-righteous Iberian judges, to decide.

DARKLY DRAWN MYSTERY

Never Street—by Loren D. Estleman (Warner Books, $6.99). Street-smart, smart-alecky Detroit detective Amos Walker gets a bizarre missing-person case that leads to mayhem and murder via a passel of vividly drawn, colorful characters. The founder of a company producing features for cable television stations, who is obsessed with film noir—murder mysteries shot in black and white "with warped gangsters and neurotic heroes and dangerous women, shiny wet streets and big black cars with their headlights on"—has disappeared. Plenty of suspenseful grit interspersed with intriguing sound-bite treatises on that particular film genre. Interest is kept with subplots that intersect with the main one, like tributaries of a river.



Excerpt: *I got in on the passenger's side. Fat men are often fast. This one sprang his gun from its underarm clip wit an economy that would have impressed Wild Bill. Bu Hickok knew better than to try to pull the trigger on a ma whose gun was already drawn. He let his han fall into his lap with the pistol in it. "Who th hell are you?"*

It was a light voice for so much man. Actuall his face was in proportion with the rest of him. H had one eyebrow straight across and a blue jaw. I would always be blue, even when it was still we from shaving. The smell of Old Spice in the ca was thick enough to float the boat on the bottle.

I waggled Luger, "Give me the cannon an I'll tell you my name."

"That ain't no trade."

"I'll sweeten it. Give me the cannon and won't blow your spleen through your back."

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SSHFX	SOUND SHORE FUND INC	3,371.187	$94,662.93	28.08
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ADM	ARCHER-DANIELS-MIDLAND CO	2,097.1202	$33,947.14	16.1875
CSCO	CISCO SYSTEMS INC	1,000	$80,375.00	80.375
GE	GENERAL ELECTRIC	1,018.3585	$88,406.25	86.8125
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INTC	INTEL CORP	1,703.9706	$190,032.28	111.5625
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Charles Schwab

Other Comments

Clear Beauty

ROMANTICS COMPARE the cycle of the seasons to the cycle of human life, a comparison I have never really trusted. And yet now, at the age of 51, I find something in it. Sooner or later, life takes in its breath, pauses, and then tilts toward winter. I sense that tilt approaching. When the idea threatens to become oppressive, I think of the woods in New England tilting into winter—how you can see the whole expanse of the lake, not just the occasional wink through the trees, and hear every movement on the land that slopes down to the water. You can hear every living thing, no matter how cunning, before snow comes to muffle the world.
–STEPHEN KING, *The New Yorker*

Smart Decision

EDUCATION EXPERTS across the nation are abuzz about New York state's new charter school law, which aims to give communities a chance to set up their own schools, free from bureaucratic oversight. Education experts, that is, except New York City Schools Chancellor Rudy Crew. "Fraught with peril" is how Mr. Crew described the state plan, and promptly issued a statement slamming Albany and declaring his opposition to any experiment.

In turning his back on charters—not to mention his other nemesis, vouchers—Mr. Crew is opting to climb the North Face of the educational Everest. New York schools were already awful when Mr. Crew took over a few years ago. The chancellor has labored hard but achieved little beyond announcing a citywide reading initiative, permitting the city's equity enthusiasts to kill off gifted programs, and collecting an enormous pay hike.

Charters may not be the ideal reform. We ourselves prefer vouchers, which give schools and parents maximum autonomy. But charters are a start, and New York City kids, some of the nation's most deprived, deserve a chance to be part of their experiment.
–*Wall Street Journal*

There's the old Arkansas joke that in pioneer days there was a large sign on their state border: "Turn left for Texas. Turn right for Kansas. If you can't read this, stay in Arkansas." Bill Clinton couldn't read America's dreams for him.
–ALLAN FOTHERINGHAM, *Maclean's*

Ripple Effect

IMPEACHMENT'S POTENTIAL ramifications remain underfoot for us to trip over daily, like last summer's uncoiled garden hose lying in wait just inside the shed door. I talked with a chap who belongs to an investment club whose members voted to sell a certain stock because of the uncertainty over pending impeachment proceedings. All-Monica-all-the-time had taken its toll on their portfolio.

Down at the local gossip shop, the regulars profess to be some old si and tired of all this impeachme talk. Then they spend the remaind of their coffee break talking abo impeachment.

Not even Australia is immune. A official at the Madame Tussaud museum in Sydney told reporters th staffers felt compelled to sew closed th fly on the presidential mannequi "Every time we went past Bill Clinto the zipper was undone," she explaine
–KENT WARD, *Bangor Daily News*

Look Out

THE GERMAN taxation system is in dreadful mess. There are many loop holes, and it is claimed most of th rich pay no income taxes. It woul be a disaster for Britain to be force to accept German methods of taxa tion. If Tony Blair takes a leaf out c Germany's book—when in trouble lecture neighbors on what to d rather than solve your own prob lems—he may create disharmon with German politicians but h would do Britain, Europe and eve the German people a great service.
–JOHN OXLEY, Celle, Germany, letter to *The Economist*

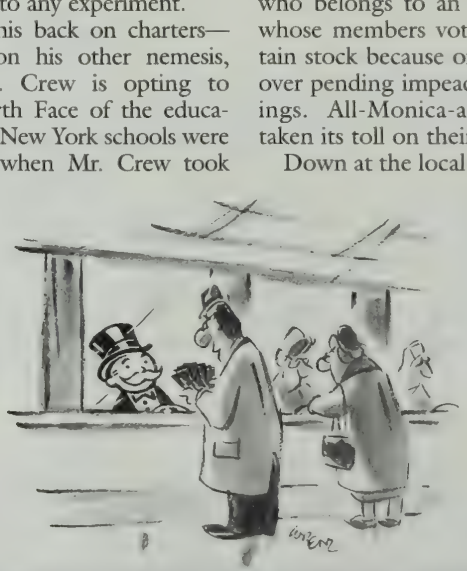
Too Real

"MR. WALKER, this is Ashraf Naheen We met last week at Balfour House On Mackinac Island?"

I recognized the British accen now, too precise to have beer acquired in the country of origin.
–*Never Street,* by LOREN D. ESTLEMAN

In Case You Didn't Nose

JANUARY IS a peak month for sales o facial tissue, because flu season usuall reaches its height in late December o early January. Americans go through about 200 billion tissues each year with some availing themselves o more than 80 a week. Women use twice as many tissues as men do. Most users restrict themselves to one tissue at a time, and half fold the tissue before blowing their noses.
–*Atlantic Monthly*



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Commentary

n events at home and abroad

Caspar W. Weinberger, *Chairman*

AN AGENDA FOR NATO'S NEXT 50 YEARS

HIS YEAR MARKS NATO's 50th anniversary. In Washgton this April, NATO will hold one of its rare summit ntherings, with the heads of its 16 member states in attenance, as well as their defense and foreign ministers.

This meeting should be one of great celebration for the orld's most successful defensive alliance, but, instead, ATO's future role is being questioned. Some are even callg for an end to NATO, on the specious grounds that, ecause the old threats are gone, NATO has no role.

Born in 1949—two years into the Cold War—NATO, ith its cohesion, its unity of purpose and the unstinting articipation of the U.S., helped convince the Soviets that eir westward march had to end at NATO's eastern bor-er. With the Cold War won, NATO's worst enemies are nternal: the growing weakness and indecision of the U.S.; he determination to link all NATO actions to an indeciive and basically unmanageable U.N., where the French, Russians and Chinese seem determined to challenge every J.S. interest and goal; the fear of doing anything to offend r displease a defeated Russia; and, finally, the growing, if till inchoate, demand for more European Union indeendence from NATO. These things have seriously weakened NATO, but worse are the ridiculous concessions made to Russia when we were trying to secure its approval or NATO expansion. Among other things, we gave Russia what it at least believes is the right to veto any proposed NATO action of which it disapproves.

The painful results of all this are too evident. NATO was unable to act effectively to stop Serbia's brutal aggression in Bosnia. A fragile cease-fire exists only because the Dayton accords gave Slobodan Milosevic what he wanted—a partitioned Bosnia—and because U.N. peacekeeping troops have been deployed there. This pattern was repeated three years later in Kosovo. We allowed Milosevic, after lengthy negotiations, to keep 12,000 of his fully armed troops and 6,000 police in that troubled province, and, in return, he allowed us to put in 2,000 unarmed observers. This was hailed as a great victory by our State Department. These kinds of negotiations sometimes win Nobel Peace Prizes, but they do not result in much peace.

Is There a Need for NATO?

Yes; and there is much that a strong, pre-Clinton-era NATO should have on its agenda:

- The Cold War was won, but the ensuing peace is rapidly being lost. Russia has a vast arsenal of nuclear warheads. It has an unstable government, with an unstable nominal leader in Boris Yeltsin; it has a viciously pro-Communist, anti-U.S. actual leader in Yevgeny Primakov, the former KGB official and friend of Saddam Hussein—and any other anti-U.S. leader he can find. The Russian military is low in morale, but it has a huge and growing inventory of lethal weapons (paid for largely by unsupervised U.S. and Western aid). The situation is ripe for a coup, which could lead Russia back into a role of aggression reminiscent of the U.S.S.R.
- An effective NATO would not have to wait for Kofi Annan's permission to act. It could be an effective deterrent to the use of nuclear, biological and chemical weapons in the hands of rogue states. The U.S. could also work toward this end far more effectively if we gave up our adherence to the ABM Treaty, with its insane banning of any effective missile defense against weapons of mass destruction.
- A strengthened NATO should carry the burden of blocking the ever-more-aggressive terrorism of Saddam Hussein. (U.S. interventions only seem to take place when Mr. Clinton urgently needs a diversion from his domestic troubles. Most gambling experts are betting that our next firm stand will occur shortly before the Senate vote on impeachment.)
- NATO has maintained the U.S.-Canada-Europe link with conspicuous success for 50 years; this should be high on any future NATO agenda. The Europeans' desire for a bigger defensive role can be encouraged so long as it does not compete with NATO's overall defensive role. Greater European spending on defense would be most welcome.
- Poland, Hungary and the Czech Republic will all be official NATO members in April. NATO must be free—with no more futile concessions to Russia—to accept other refugees from the Warsaw Pact, should it so choose.

What NATO needs is the continued recognition of and support for its vital role in keeping the West firmly united against rogue states and against any attempts by Russia to regain its old Soviet Empire—or to wage war to hide its own desperate economic situation from its unhappy people.

This is more than enough to comprise an agenda for NATO's next 50 to 100 years. For our part, the U.S. needs to have an Administration that can think beyond the photo opportunities of April and recognize how vital a strong NATO is—for us and for Europe. ■

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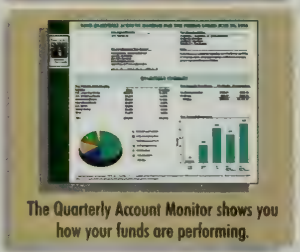

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Digital rules

Technology and the new economy

Rich Karlgaard, *Publisher*
blisher@forbes.com

MAYBE NOT SO CRAZY

YOU'VE BEEN AROUND long enough to recall the crazy d-up of growth stocks in the late 1960s—and their subse- ient fall to earth and below—it's easy to become cynical.

Here we go again, it seems. Amazon.com loses money, t its stock is worth eight times Barnes & Noble's. Amer- a Online has zoomed past General Motors in market cap. harles Schwab has elbowed aside Merrill Lynch. Yahoo worth double the New York Times and Dow Jones *com- ined*. A company called eBay—eBay?—went public in ugust and sits atop a $10 billion valuation at year's end. s two founders could barely afford a nourishing diet in 995; now they're billionaires. Where does it end?

You may answer, "With a crash!" But consider this: In 968 there was no such thing as a microprocessor; that was o come in 1971 from the labs of three-year-old Intel. There as no such thing as the Internet or fiber optics; they arrived the 1970s. Even at Intel in the 1970s, its microprocessor as a sideshow to its core business, memory chips.

How have tiny computers and the Internet grown to be he driving force in the world economy by century's end? Because they get cheaper and better every year—at a truly unning rate of improvement/cost that has no precedent in istory. And there's no end in sight to this phenomenon.

What's New About the New Economy

The exponentially improving capability/cost is what makes the Digital Age different from the Industrial Age (1770s–1970s). Steam engines propelled its first century; then gas engines and electricity took over. To be sure, these Industrial Age drivers got better and cheaper each year, but at an improvement/cost rate in the 100 times to 1,000 times range, measured over a century.

Microprocessors, however, double their performance every 12 to 18 months and drop in cost by 30% a year. Millionfold gains have already occurred. More stunning: digital bandwidth is improving at a rate two to four times faster. (For a finer-grain insight, subscribe to George Gilder's newsletter: www.gildertech.com.)

From a mix of capital, resources and talent, entrepreneurs create new and greater value. Secret: Use fast-improving resources. Henry Ford built an empire around gas engines, steel, glass and rubber, assembled into cars in factories run by electricity. He destroyed the horse and buggy. Bill Gates has built a powerhouse around software for microprocessors, written and packaged by aggressive, high-IQ people. He destroyed minicomputers.

Jeff Bezos of Amazon slyly uses his customers' own PCs and Internet connections as a free resource and substitute for the land, buildings, inventory and crack sales-staff expensively assembled by Barnes & Noble into its older version of a bookstore. Bezos has hitched Amazon's star to the improvement/cost curve of chips and bandwidth, just as Henry Ford hitched his to radically improving gas power, steel quality and factory efficiency. Amazon can scale worldwide at the pace of the improvement/cost rate of chips and bandwidth—which is to say, very fast! Barnes & Noble (the non-Internet part of it) can scale only at the speed of industrial-era construction crews.

Is it crazy that Amazon is worth $18 billion? Depends on your time horizon. It surely fails the "Mom Test"—I would not recommend Amazon to my 65-year-old mother, not at $18 billion. "Chips on the dips" is a safer way for Mom to play the Digital Age: Buy Intel, AMD, Texas Instruments, etc., whenever they drop 50% below their 52-week highs.

Amazon's current market cap presumes it will get to $12 billion in sales without a hiccup (Wal-Mart, for example, trades at 1.5 times revenue). This could happen. Remember, Amazon has no brakes on its scalability. It can grow without much friction—in theory, at least—far more easily than did Wal-Mart, which reached $118 billion in sales in 36 years. Amazon's main barricade to growth will be the number of categories it can sell without straining its brand.

Bad News for Old Business Models

Less crazy than Amazon's market cap, I believe, is its premium over traditional booksellers. Saddled with pricey real estate and inventory, many retail chains face a bleak future. Last month I ducked into a Borders books and music store in midtown Manhattan. It was early December, prime shopping season. New Yorkers and tourists were jammed into the streets on this balmy 60-degree evening. Yet inside Borders, I counted about five shoppers per floor, with another five at the coffee bar. That was it.

Laugh all you want at the crazy market caps for e-commerce stocks. You are probably right; and keep Mom off her E*Trade account. But turn cynical about it and you'll forgo the greatest wealth-creation boom in history. ■

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Does art imitate economics?

"If you want to compete with Barnes & Noble, you need something more than a 10% discount."

LARA TOMLIN

IN *You've Got Mail* Meg Ryan plays the owner of a too-cute-for-words New York City kiddie bookstore that goes under after the heartless Barnes & Noble equivalent opens nearby. Typical Hollywood. But what's real life like in the book business?

Meg's fictional store was patterned after a real one—Manhattan's Books of Wonder. Ryan even learned how to use a cash register at the shop. Books of Wonder also nestles perilously in the shadow of not one but three Barnes & Nobles. By the laws of Hollywood economics, it should have given up the ghost ages ago.

It's true that small bookstores are losing ground to big ones—the number of certain niche stores has dipped by a quarter in the past five years. But some small stores—in particular, specialized ones—are thriving, and Books of Wonder is one of those. When a B&N opened just four blocks away from Wonder's Seventh Avenue location in 1994, sales at Wonder leapt by 20%. So says manager Jennifer Lavonier, although she won't reveal the numbers. The growth has held at her new location on 18th Street (also within three blocks of the nearest book superstore).

In the movie the evil chain store slashes prices while Meg Ryan offers charm, erudition and that ridiculously perky little nose-wrinkle of hers. Get real, honey, her worldly colleagues scoff.

In the real world: Books of Wonder sells full-price hardcovers, but carries a wider selection of kiddie books (12,000 titles) than Barnes & Noble (8,000). Go into B&N to ask for the splendid Dorling Kindersley children's bible, and you will probably get one or more clerks who can't find the book in their computer. At Books of Wonder the clerks know what you are talking about without consulting the infernal instrument.

Nor is Lavonier an anomaly. In the past three years Hillel Stavis and Donna Friedman, owners of the independent Wordsworth bookstore in Harvard Square, opened two children's shops in areas well served by superstores, including one in the flossy mall in nearby Chestnut Hill. They're doing just fine.

You've Got Mail accurately portrays the big chains' earnest desire to take business away from neighborhood stores. But the $1.35 billion children's book market represents only 7% of book sales overall, so there's only so much time and money the monster book chains want to spend on the category.

"If you want to compete with Barnes & Noble, something has to make you more special than a 10% discount," says Lavonier. "Every book in this store has been read by someone who works here. If your 10-year-old is being antisocial at school we have your title: *Tangerine,* by Edward Bloor." Meg Ryan couldn't have said it better herself.

–B.P.

The Forbes/Bridge Economic Forecast Report

Edited by Shlomo Z. Reifman

THE U.S. ECONOMY	Actual latest	1998	1999 est mean	1999 est high	1999 est low	4-wk % chg in mean
Automobile sales[1] (mil)	15.7* nov	15.0e	14.1	15.5	10.0	–0.8
Capacity utilization (%)	80.6 nov	81.7e	80.3	82.6	77.0	–0.1
New housing starts[2] (thou)	1,604* nov	1,559e	1,466	1,624	1,300	–0.1
Retail sales[3] ($bil)	2,019* nov	2,345e	2,303	2,600	2,000	–4.6
Trade balance[4] ($bil)	–158.8* oct	–197.2e	–232.1	–130.0	–333.0	11.0
Unemployment rate[5] (%)	4.4 nov	4.6e	5.1	7.0	4.0	1.2
Gross domestic product[6] (%)	3.7 3rd qtr	3.2e	2.2	3.5	0.6	2.9
INFLATION						
CPI services (unadjusted) (%)	2.5 nov	2.6e	2.6	3.1	2.0	–5.9
CPI total (unadjusted) (%)	1.5 nov	1.6e	2.0	2.9	0.9	–2.9
INTEREST RATES						
30-year Treasury yield (%)	5.15	5.10a	5.35	7.00	4.00	–0.2
3-month Treasury yield (%)	4.47	4.45a	4.62	6.00	3.25	–0.2
PRICES						
CRB-Bridge spot indexes	235.52	235.22a	219.58	260.00	163.33	0.0
Gold per troy ounce ($)	287.40	288.10a	286.67	320.00	250.00	–0.9
Oil/bbl W Texas Intermediate ($)	12.33	12.05a	15.59	19.00	9.50	–4.2
CURRENCY						
German marks per dollar	1.65	1.67a	1.80	1.83	1.25	–2.2
Yen per dollar	112	113a	135	158	115	0.2

Estimates are contributed by leading economists, who surveyed biweekly by Bridge Information Systems. Forbes magazine. Consensus forecasts as of 12/30/98.

FEDERAL FUNDS WATCH Next Federal Reserve meeting: Feb. 2, 1999

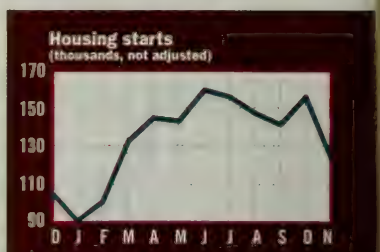
Current rate: 4.75% **Last action:** Nov. 17, 1998 –25 basis points

Likelihood of shift in interest rates in the next 90 days by the Federal Reserve

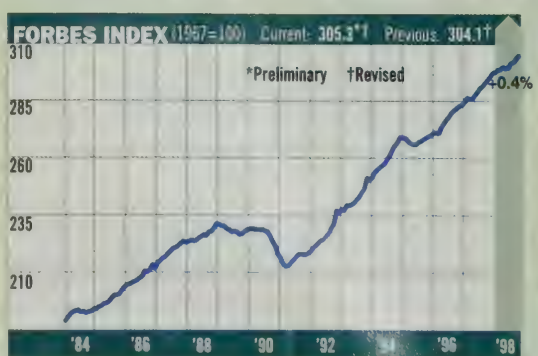
Very likely — Possibility of decrease or increase — Very unlikely

Joshua Feinman, global economist Bankers Trust, says that U.S. gro domestic product growth and manu facturing sector growth were close correlated for a 45-year stretch prior 1998. For 1998, however, Feinma expects GDP growth of 3.5% (versu 3.8% in 1997) and manufacturin growth of just 2% (versus 7% in 1997 Feinman credits low interest rates fo this new trend. He notes that rate usually rise late in the business cycle t curb inflation. Last year, with inflatio in check, the Federal Reserve cut rate This helped stimulate consume spending, but manufacturers are sti nervous about an economic slow down. Indeed, Feinman's 1999 out look calls for a GDP growth of onl 2.5%, and 1% for manufacturing.

SPECIAL FOCUS



For the 11 months ending in November, 1.5 million housing units were started, versus 1.4 million for the same period in 1997. For all of 1998 our survey economists expect 1.6 million starts. The forecast for 1999, a 6% slowdown, to 1.5 million units.



Current	Previous	Change
$195.0	$193.9	0.6%

The Forbes Index is a measure of U.S. economic activity composed of eight equally weighted elements: the cost of services relative to all consumer prices, the level of new orders for durable goods compared with manufacturers' inventories, total industrial production, new housing starts, personal income, new claims for unemployment compensation, total retail sales and total consumer installment credit.

Our Web site, www.forbes.com, has daily updates on economic estimates and detailed information on Forbes Index components.

*Twelve months. a. 12/31/98 actual, e: estimate. [1]Autos, light and heav trucks, including imports. [2]Total single and multiple family, seasonally adjusted. [3]Excluding auto sales, annualized and seasonally adjusted [4]Total goods and services, annualized and seasonally adjusted [5]Percent of civilian labor force. [6]Quarter-to-quarter percent change, annualized. *Source: Bridge Information Systems Inc.*

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DEALS Las Vegas is overbuilt and due for trouble. Why is Kirk Kerkorian raising his stake there?

The Strip and The Street

By Bernard Condon

DAVID BURNETT/CONTACT PRESS IMAGES

Kerkorian made billions buying a down-and-out Chrysler. Double or nothing with MGM Grand?

KIRK KERKORIAN, majority owner of MGM Grand from time to time since he spun it off from movie studio Metro-Goldwyn-Mayer back in 1980, has been raising his stake again in the casino operator. In September 1997 he bought out boxing promoter Don King's stake for $28 million, at $44.50 a share. Since then the stock market as a whole has climbed 24%, but MGM Grand shares have sunk 35% to a recent $27.75. It seems that Kerkorian's timing is a little off. Has this fabled billionaire lost his touch?

Before you assume the worst, take a closer look at what is going on. Wall Street is reacting to the coming capacity glut in Las Vegas. From November 1998, after Mirage Resorts' 3,000-room Bellagio opened, through the middle of 2000, the city will get four prominent new casinos and a flood of hotel rooms, expanding the count 16%, to more than 120,000. The Nevada gambling business, moreover, is facing competitive threats from elsewhere, such as Indian casinos in California, where gambling regulations have just been eased.

As for Kerkorian's timing, this 81-year-old speculator did not get rich buying when and where everyone else was buying. Remember his $1.5 billion investment in Chrysler, beginning eight years ago? Even his closest advisers thought he was nuts. Chrysler was in a sales slump at the time. But that made the stock cheap—it was 62% off its 52-week high. Stock in the company, now part of DaimlerChrysler, has since risen nearly twelvefold.

By unloading $1.2 billion of Chrysler stock in the past year and a half, Kerkorian has accumulated plenty of cash to put into Vegas. As MGM Grand shares sank to $30 last summer, he stepped u his buying. He picked u 1.8 million more share for some $50 millio and had the compan buy back 10% of its out standing shares. Kerkor an now owns 73% of th company, up from 62 just over a year ago.

Casinos may be out c favor, but they are soli earners when they ar run well. MGM Grand' namesake casino on th Strip generates at leas $200 million a year i operating income (earn ings before depreciation interest and taxes). Thi means that the $1 bil lion the company spen building it five years ag was a bargain. All told MGM Grand, which also owns 50% of the New York-New York casino hotel on the Strip enjoyed a handsome operating margin near 30% on its estimated $780 million in 1998 revenue (the revenue, of course, being figured from the gross win, not the amount bet). With interest expense consuming only 11% of operating income, the company has considerable untapped borrowing power. That will come in handy if Las Vegas goes into a bad patch and distressed properties come up for sale.

Despite the competition from Steve Wynn's Bellagio and elsewhere, Kerkorian is plowing money back into the city. He is spending $700 million to renovate the MGM Grand casino to make it more of a tourist attraction. The company is also spending $750 million to build a casino in Detroit, where there's limited competition and lots of

demand. Meanwhile, it is issuing $265 million worth of stock to take over Primadonna Resorts, a gambling outfit without the financial muscle to develop significant new projects. This deal should close next month.

Primadonna jointly owns New York-New York with MGM Grand. It spent a lot of money building a shopping mall near three casinos it owns on the border between Nevada and California, hoping to boost casino traffic. The mall idea looks like a bust. But MGM Grand is getting a nice deal. Add the $225 million in Primadonna net debt to the purchase price, and MGM is effectively paying $490 million for the assets. That figure is a mere 4.9 times Primadonna's operating income, says Martin Roher, a San Francisco money manager who has followed Kerkorian for 25 years. The typical ratio of enterprise value to operating income in this industry ranges from 8 to 12.

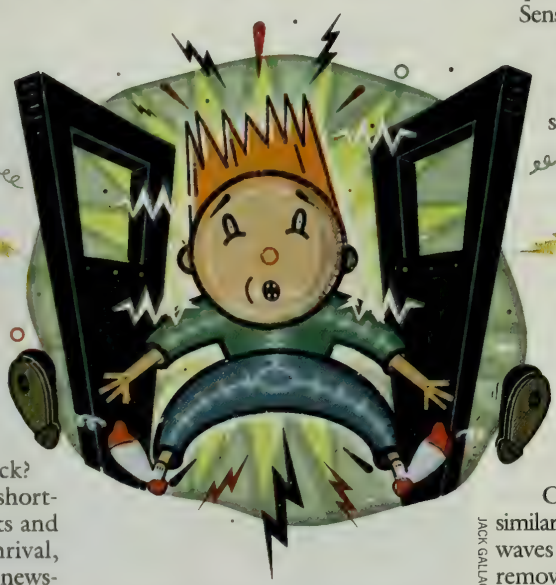
The Primadonna deal looks even better if you consider Primadonna assets not yet producing profits: four undeveloped acres on the Strip, 140 more in California and a couple of golf courses near the border that Primadonna had just spent $50 million developing. MGM Grand plans to fly its high rollers from the Strip out there in helicopters.

For its part, MGM Grand is trading at a price that gives it an enterprise value only 6.6 times operating income. Kerkorian will almost certainly make some good money from this asset, perhaps as good a compound annual return as he made in Chrysler. Public shareholders might not make a killing—there's always the risk that Kerkorian will take the company private at a lowball price—but they have a fighting chance. ■

COMPANIES It's pretty hard to live down a health scare, especially when you have to contend with a nasty competitor and a pack of gullible journalists.

The zapping of Sensormatic

By Michael Fumento



JACK GALLAGHER

WHAT'S WRONG WITH this picture? Sensormatic Electronics Corp. dominates the market for antitheft systems in retail stores. Rebounding from a slump that began a few years ago, the Boca Raton, Fla.-based company should report 40 cents a share in earnings in the current fiscal year and 70 cents in the next. But the stock languishes at $8.63, well below book value.

What's poisoning this stock? Quack science, propagated by short-selling sharks, sloppy journalists and Sensormatic's shrewd archrival, Checkpoint Systems, Inc. Scary newspaper stories have warned that electronic antitheft systems may interfere with pacemakers and defibrillators in 1.1 million Americans. It ain't so.

Checkpoint itself funded one study condemning the Sensormatic system; then it placed press releases and full-page ads touting its own systems as "free from pacemaker interference." Checkpoint, based in Thorofare, N.J., is less than half the size of Sensormatic, so the counterpunching would be fair game if the pacemaker threat were real. But it isn't. The U.S. Food & Drug Administration reviewed the matter last fall and deemed the threat insignificant. The American Heart Association has weighed in similarly.

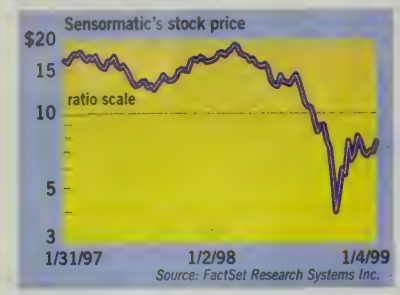
Says Sensormatic President Robert Vanourek: "Look, Coke battles Pepsi, Ford battles GM. But there's a sense of playing by the rules. When you engage in company assassination by innuendo, you've gone beyond the pale." Checkpoint says it's only trying to avoid getting hurt by the scare—which it has helped perpetuate.

Sensormatic's image problems began in May 1995 with a report by Dan Dorfman, then an on-air rumormonger for CNBC. His key source: a public relations guy who had worked for Sensormatic, lost the account and quickly took on Checkpoint as a client. Within days Sensormatic's stock had lost one-fifth of its value as short-sellers pounced.

Cut to two years later: Checkpoint gives a $100,000 grant to Michael McIvor, a cardiologist at the Heart Institute of St. Petersburg, Fla., to study the pacemaker problem. Both Checkpoint and Sensormatic sell similar systems that emit magnetic radio waves to detect tags that haven't been removed or desensitized at a checkout counter. Checkpoint's systems simply operate at a higher frequency.

The findings were golden for Checkpoint: McIvor said the Sensormatic system interacted with 48 of 50 pacemakers; Checkpoint systems caused no interactions. The

Left for dead?



Sensormatic's antitheft systems aren't risky. But the stock is another story.

results ran 18 months later in the October 1998 medical journal *PACE*, just as the November issue of the *New England Journal of Medicine* ran a short article about one case and a letter, coauthored by McIvor, about a second.

The press ran wild. "Shoplifting gates can be hazardous," the Associated Press blared. CNN, *USA Today*, the *Chicago Tribune*, the *New York Daily News* and the *Washington Post* picked up the story. Reuters declared the systems can "make implanted pacemakers and defibrillators go haywire, with sometimes fatal results"—and later issued a correction saying there was no evidence of deaths.

The fine print was far less frightful, but few noticed. Fifty people is a terribly small sample. An "interaction" usually is nothing more than a skipped heartbeat. Only three of the people who walked briskly through the antitheft gates had an interaction; the other interactees were told to stand between the gates or lean on a transmitter—for up to five minutes.

Featured prominently in the coverage was McIvor, who wasn't the most objective investigator. He sought out Checkpoint, among other antitheft system makers, to fund his study after a patient had trouble with the sensors. He put out his own press release, pushed the FDA to investigate and laid out the risks at a retailers' seminar.

Sensormatic fought back. It forked over $25,000 to get access to McIvor's results and still hasn't received the data. As the company fired off press releases and letters to the editor defending itself, it only focused more attention on the whole mess—and journalists are loath to retract their scare stories.

The frustrating thing for Sensormatic is that most experts firmly agree no real risk exists. A review of 43,000 pacemaker patients who get U.S. veterans' benefits found a "total absence of any complaints." A study of 150,000 patient histories in London found much the same. The FDA has logged about 20 reports. Worst reaction: "chest pain."

Yet with 1.1 million patients, and 60,000 stores using antitheft systems, if the risk is real, "Something should *happen*. There ought to be people lying on the floor at Home Depot," says J. Warren Harthorne, director of the pacemaker lab at Massachuset General Hospital in Boston.

Serious problems "are extremel unlikely to happen," adds Douglas Zipes, vice president-elect of th American College of Cardiology an a professor at Indiana University. H has just submitted a new study fo publication: One hundred seven patients with implanted defibrillato walked through Sensormatic system and "zero interactions" were found "This whole thing is just a tempest i a teapot," he says.

And just who funded Zipes? Sen sormatic, fighting fire with fire. ■

Michael Fumento is a Senior Fellow at the Hudso Institute in Washington, D.C.

COMPANIES Even Unilever, which sells $130 million in products a day, can lose sight of its customers. Niall FitzGerald is getting back in touch.

A giant reawakens

By Deborah Orr

PETER JORDAN/ NETWORK/ SABA

Unilever Cochairman Niall FitzGerald

NIALL FITZGERALD'S career bubble almost burst in the soap wars of 1994. He was chief of Unilever Plc.'s soap division when it rolled out Persil Power, a laundry powder that packed an extra scrubbing chemical. Persil Power scrubbed *so* hard that it ate right through some fabrics. The British press had a field day—"It's Official! Persil Can Rot Your Knickers." Archrival Procter & Gamble gleefully aired the dirty laundry in ads displaying shredded boxer shorts.

In the midst of the crisis FitzGerald met with 30 Unilever executives to plot a way out. "I asked how many people in the room did their own laundry. Not one person raised a hand," he says with amazement. "There we were, trying to figure out why customers wouldn't buy our soap—and we didn't even know the first thing about how it was used."

That taught FitzGerald a lesson he

Soap to nuts

Peddling more than a thousand brands in 150 countries.

Needs to this day: Never lose touch with your customer. Embarrassed and beleaguered, he pulled the plug on Persil Power, letting a few hundred million dollars go down the drain. FitzGerald was ready to quit. Observers thought he would.

"But what kind of message would that have sent?" he says. "We were trying to become more entrepreneurial, take more risks. If I walked out after my first failure, everyone else at Unilever would say, 'This business doesn't tolerate risk-taking. Remember what happened to FitzGerald?'"

He survived the soap opera and rose to cochairman of Unilever in September 1996. In the two years since, he has put some spring into its step. He has hacked off limbs that Unilever had long held dear—everything from plant-breeding to a Caterpillar tractor franchise—raising $9.5 billion. He has imposed order on what remains: 300 operating companies producing a thousand brands, and overseen by 12 regional business group presidents who now wield more autonomy.

FitzGerald and his cochairman, Morris Tabaksblat, still have a lot of work ahead. This year they hope to sell off businesses that provide $2 billion of Unilever's $48 billion in annual revenue. They must slash an inefficient, country-by-country infrastructure in Europe to exploit the new common currency. Some Unilever brands lag in the U.S.—Pepsodent toothpaste, Pond's cold cream, Wisk detergent and a lot you wouldn't recognize—and rarely attain the rank of number one.

But FitzGerald seems up to the task. He has revived Unilever by cozying up to consumers. Now, when he travels to Unilever sites, he makes house calls on "real people," as well. "I usually ask them to show me how they clean their clothes. One woman in Thailand was kind enough to show me how she washed her hair," he says. "I always ask to look in the fridge—not so much looking for my products, but just to get a sense of what people are buying." Recruits at Hindustan Lever, the 51%-owned India subsidiary, are asked to spend six weeks living with a family in a remote Indian village "so that from the very beginning they understand who our consumers are," he says.

It isn't exactly the stuff of focus groups and two-way mirrors, but FitzGerald says the approach works. "Consumers aren't some great amorphous aggregate. They are individuals who live in 150 different countries."

Yet an amorphous aggregate is precisely what mass-marketers have targeted, historically. They aimed catch-all products with midrange prices at the vast middle class. A few head for the plush profits of high-ticket goods; others go south to discount brands.

Unilever hopes to appeal to a wider range of incomes, segmenting its businesses into products at multiple price points. In the developing world Unilever is moving away from catering to a rising middle class to targeting the dirt-poor. FitzGerald and Tabaksblat hope to create new markets where none existed before, selling to some of the world's poorest consumers, who earn less than $200 a month and make up just under half the world's population.

The Everyman project, as it is now called, began in India five years ago. For women who wash their clothes in the Ganges, the company's laundry soap is sold as bars for a few cents. Now the tack is being tried in Brazil. For the poorest regions there, Unilever developed a special shampoo for long, wavy mulatto hair. Africa and the rest of Latin America will be next.

Unilever doesn't advertise these low-end staples, and it distributes the products on a shoestring budget, yielding just enough profit to earn back a reasonable return.

This new attitude has turned marketing on its head at Unilever. "Now we are following a more stratified approach. Even in mature markets, we try to cater to different income levels," says Tabaksblat, who is based in Rotterdam in the Netherlands, while FitzGerald works out of London.

The poverty push plays to Unilever's strengths in emerging markets, where it went in early before even the most fearsome competitors. "In markets like India,

Procter & Gamble doesn't even come in second in a two-horse race," says Charles Mills of Credit Suisse First Boston. The sheer breadth of Unilever's lines insulates it to some degree from things like regional depressions; if people can't afford the expensive detergent, the same factory can turn out more of the cheap detergent.

Whether Unilever can stay insulated if global economic turmoil worsens is uncertain. Still, Unilever has made impressive strides in the past two years. The net profit margin has perked up from 4.8% in 1996 to 6.5% (the Value Line estimate) last year. But it's still a long way from P&G's 10.5%.

Unilever's shares, which rose at only half the rate of its peers from 1990 to 1996, have more than doubled in price since FitzGerald became cochairman. FitzGerald, 53, a charming but hard-charging Irishman who has spent his entire career at Unilever, gets much of the credit for that rebound. Tabaksblat, another Unilever lifer, who landed the cochair title two years ahead of FitzGerald, retires later this year, and a successor is expected to be named.

That two-chair tandem is a remnant of the 1929 merger between the Dutch Margarine Unie and British soapmaker Lever Brothers. Another remnant: two holding companies through which investors own the company. (Both the Netherlands shares and an American Depositary Receipt, representing British shares, trade on the Big Board.)

As the rebuilding project continues, FitzGerald vows to keep an unflinching focus on return on invested capital. He will unload more beloved businesses that don't make the grade. "We have stopped sentimental management. The only justification for something is its ability to deliver value in the future," he says.

He has even managed a bit of vindication in the soap business he once ran. Last year Unilever rolled out a new, gentler version of Persil in tablet form. This time Unilever stole a march on rivals and increased its market share in Britain by three points. Analysts say it was the first such gain in four years—since that unpleasant episode with the knickers.

TECHNOLOGY In a heavily regulated industry, the regulators can take hostages.

AT&T gets a ransom note

By Seth Lubove

REX RYSTEDT

Tacoma's municipal cable system, headed by Steven Klein, is one new irritant to TCI—and, hence, AT&T.

WHY DID EXECUTIVES OF AT&T and its intended $48 billion acquisition Tele-Communications Inc. help pack the house at a meeting last fall of the obscure Mount Hood (Ore.) Cable Regulatory Commission? Because the area's municipalities, including Portland, want to force AT&T to allow any Internet service provider—not just TCI affiliate At Home Corp.—to access the company's cable lines.

And how is it that the Mount Hood Cable Regulatory Commission has such power? Because it can threaten to tie up the transfer of TCI's license to do business. Cable-franchise law, that is, empowers the shopkeepers and retirees who sit on local regulatory panels to slow up one of the nation's most dynamic industries.

AT&T could afford to throw a sop to Oregon. But can it afford to buy off all the little pote tates across the countr TCI does business 4,000 municipalitie Los Angeles and TCI home city of Denver a also looking at Intern access ordinances, whic are being aggressive pushed by America On line, U S West and oth competitors.

"U S West does no want competition," snap AT&T's general counse James Cicconi. "It's simple as that."

In towns where TCI mixed service record ha frustrated locals for year politicians are happy t rubber-stamp AT&T takeover if it gets rid c John Malone's cabl crew. But many others are takin advantage of the one-time opportuni ty to squeeze AT&T—which wante TCI mainly to offer local phone ser vice—into investing in costly upgrade and pet political projects such a wiring schools and libraries.

"Why should municipalities giv away what they otherwise don't hav to?" contends municipal cable con sultant Lawrence Monroe.

TCI has already been battling prairie fire of municipal cable startup aimed at puncturing its monopolies Beginning in Iowa and breaking ou more recently in Tacoma, Wash. these include the laying of cable lines often at taxpayer expense, to compet for cable and Internet services with TCI's franchises. The company ever sent its Tacoma-bred president, Le Hindery, to the town last year t

ead against building the system, to
avail. Seattle may be the next gov-
nment to follow Tacoma's lead.
The AT&T-TCI merger was recent-
approved by the U.S. Department of Justice and is due for a nod by the Federal Communications Commission. Doesn't this preempt the matter? David Olson, staff director of the Mount Hood commission, doesn't think so. "There is no FCC decision preventing us from imposing this [access] condition, no judicial decision," Olson contends. Still to be heard from: 3,999 other towns. ■

MARKETS A dysfunctional Japanese financial ystem creates peril for our Main Street.

The bouncing yen

y Benjamin Fulford

THE SUDDEN 14% PLUNGE of the U.S. ollar against the yen in October aught the world by surprise. The yen ad only recently been trading at 147 the dollar and was apparently falling. uddenly it turned right around and ose to 114. Just when nearly everyone as predicting that the yen would con-inue to fall against the dollar, it did the pposite. But, far from reflecting apanese strength, the higher yen actu-lly reflected Japanese weakness.

How can this be? How can a weak conomy generate a strong currency?

The answer is that weakened Japan-se banks and others are selling foreign nvestments and bringing the money ome to Japan. When they do that, hey use the dollar proceeds to buy en. It is this buying that drives up the en versus the dollar and other foreign urrencies.

In its desperate and losing battle to eflate the nation's economy, the Bank of Japan put more money into circula-tion—1.2 times GDP—than in the ubble economy of the late 1980s. Until recently a lot of this liquidity was flowing into other markets. Now that flow is reversing.

Between November 1997 and Sep-tember 1998, according to the latest BoJ data, Japan's banks cut their over-seas assets by $374 billion, to $878 bil-lion. That's a reduction of nearly 30%. Individual Japanese investors seeking a decent return increasingly have been going abroad—investing $68 billion net between January and October of 1998—but that's not nearly enough to fill the gap caused by bank-selling of foreign assets.

Why did it take so long for this Japanese pullback to weaken the dollar? For a while the gap was filled by a huge and largely unmeasured outflow of Japanese money to highly leveraged hedge funds.

It worked this way: To raise foreign currency to finance overseas operations and meet the dollar needs of its domestic customers, a pariah institution such as the Long Term Credit Bank of Japan was forced to buy dollars on the spot market and hedge them with interest-rate "swaps." Its counterparty was likely to be a U.S. or European investment bank acting on behalf of a hedge fund. The hedge funds then used the yen to buy such things as U.S. securities and Russian bonds.

The BoJ's leading expert on hedge funds, who, in keeping with bureaucratic tradition, spoke only on the condition of anonymity, says he and his counterparts in the U.S. and Europe "have almost no idea" how much money was entering the world financial markets this way. But when it did, instead of residing with conservative institutions like Citibank or Deutsche Bank, it became hot cash, capable of driving Treasury prices to record heights or levitating some Third World credit issue.

When the hedge funds got hit in October, the impact triggered a deleveraging that has been shutting down this off-the-books traffic. Which means less Japanese money flowing out to counter the Japanese money coming home to Japan. The U.S. is vulnerable to this net outflow of Japanese money because its current account deficit, approaching a record 4% of GDP, makes it by far the world's greatest debtor.

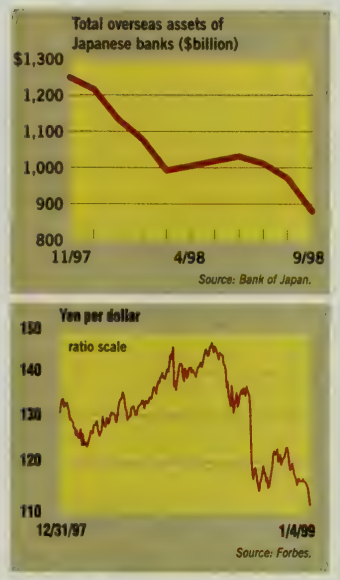
Strict new audits by Japan's Financial Supervision Agency are adding to the rush by forcing Japanese banks to unload foreign assets and bring the money home. Japanese banks need only maintain a 4% capital-to-assets ratio on a domestic basis, but 8% when they operate abroad.

"Japan was banker for the world, and now it has to buy back yen" to unwind its overseas positions, Merrill Lynch strategist Patrick Mohre says. That can't be good for U.S. stocks or for interest rates that undergird its larger economy.

The implication is clear: Japan will be exporting its troubles, such as when an upsurge in its government bond rates last month triggered a sharp rise in U.S. Treasury yields. "It . . . could lift U.S. funding costs at a time when confidence is fragile, and alter the growth outlook substantially for the worse," warns Kermit Schoenholtz, chief global economist at Salomon Smith Barney Securities.

One more reason a sick Japan is bad news for the U.S. and for the rest of the world. ■

Wrenching retreat



As Tokyo's banks pull back and hedge funds pull in, the demand for dollars dips.

TECHNOLOGY AT&T wants to stop sharing its long distance revenues with the local phone monopolies. Hey, why not just give out cell phones?

Cut the cord

By Bruce Upbin

AT&T PAID SOME $15 BILLION in tribute last year to local phone companies—"access" fees for completion of the last mile in a long distance call. Desperate to escape the burden, it is undertaking some expensive runarounds. It is planning to pay $49 billion (including assumed debt) to acquire Tele-Communications, Inc., which would give it broadband access to 12.5 million homes. AT&T also spent $11 billion last June on Teleport Communications Group, a local loop end run used by large business customers. And it spent $1 billion in a failed attempt to resell local service.

Sixty-one billion invested—and barely a dent made in AT&T's access fees. There has to be a cheaper way to escape the clutches of the Baby Bells.

AT&T may have found one—handing out cell phones. In a low-profile experiment launched in November in the Dallas suburb of Plano, AT&T is offering unlimited wireless local calls for $39.99 per month. AT&T subsidizes the price of the phones, which range from $70 to $250.

"Local" means any call from within the city limits of Plano to anywhere in the Dallas/Fort Worth metropolitan area. Long distance is a dime per minute. That's less than what a customer typically pays GTE or SBC Communications from a wired phone. And you can take it to the mall.

AT&T is going to give the Plano test at least six months. If it sells, the cell phone gamble will likely go nationwide. In that case, the plan will be big trouble for regional Bell companies. The local monopolists get 22% of their revenue from access fees. What if every second line in the country is a cell phone—and if people do a lot of their long distance calling on the second line?

Laurie Pretorius, a mother of three in Plano, bought two phones under the plan, one for herself and one for her 16-year-old daughter, Kate. With the upstairs wired phone constantly ringing for the kids, the extra wireless phones have averted what Mom call "World War III."

Getting people to rip out all thei lines may be asking too much. Wire less still lags wire line in quality, relia bility and Web-surfing. You can't trans fer a call from the kitchen to the kid upstairs unless you throw the handset

But the Plano test could be very profitable for AT&T. Unlimited calling may sound like an all-you-can-ea moneyloser, but it cuts way down or "churn," the costly practice of cus tomers switching freely between wire less carriers.

Earlier this year AT&T launched a business offer, granting unlimited local wireless time within, say, a cor porate campus, for around $24 per month. Churn in that group has fallen to zero, compared with a 2.5% industry average.

That doesn't sound like much, but it's enough to offset the cost of a quintupling of wireless network usage, according to Thomas Lee, wireless analyst at Salomon Smith Barney.

AT&T isn't saying yet how many Plano residents have signed up. But AT&T's wireless division has proven that a shrewd pricing plan can translate into huge market share gains. Its Digital One Rate, offering a flat rate anywhere in the country with no roaming fees, has attracted more than 500,000 subscribers since its launch in May. About two-thirds of these subscribers are new to AT&T. Why spend $60 billion on a ground attack when you can attack more cheaply from the air? ■

By land or by air

Service	AT&T Wireless	SBC Residential	GTE Residential
Monthly access fee	$39.99	$27.00	$19.75
Unlimited local calls in Plano	incl	incl	incl
Unlimited local calls from Plano to Dallas metro area	incl	19.70	12.75
Caller ID	incl	incl	5.25
Call waiting	incl	incl	comes w/Caller ID
Call forwarding	incl	incl	comes w/Caller ID
Three-way calling	incl	incl	2.05
Voicemail	incl	8.95	4.95
Total monthly access fee for primary line	39.99	55.65	44.75
Less discount if used as a second line	0.00	–11.42	–12.00
Total monthly access fee for second line	39.99	44.23	32.75

Source: Salomon Smith Barney.

If you live in Plano, AT&T wants you to use a cell phone instead of a second land line. Given the features you get with wireless service, the price isn't all that bad.

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Population in millions (ratio scale)*

9,000

1,000

100

50

World population growth may be slowing, but don't cheer yet.

Slower explosion

By Peter Brimelow

IS THE POPULATION EXPLOSION ENDING? The United Nations reduced its world population projections recently. This cheered conservative and religious groups as evidence that the population explosion would go away without government promotion of birth control, abortion, etc. *(see chart).*

In fact, many demographers expected that population would stabilize as technological and social limits were reached. And charted on a ratio scale, where a steady growth rate appears as an upward-sloping straight line, human population history loses much of that familiar terrifying exponential upswing *(upper line, left scale).*

But don't cheer yet:

■ Even on a ratio scale, the recent explosion is historically exceptional—"consistent with the conventional understanding," says demographer Michael S. Teitelbaum, coauthor, with Jay Winter, of *A Question of Numbers: High Migration, Low Fertility, and the Politics of National Identity* (Hill & Wang, 1998, $26.00.) And even with the slowing, the U.N. projects that world population could reach 8.9 billion by 2050, up from about 6 billion today, and almost 11 billion by 2150.

■ Even if overall population is stabilizing, indivi ual countries will grow partly because people red tribute themselves. Thus the U.S. population authoritatively expected to expand by about half, some 394 million in 2050, basically because immigrants and their descendants *(see inset char*

■ This population explosion is actually the third human history. The first began with the develo ment of farming about 5000 B.C. It ended arou A.D. 200 as the classical societies of Rome a China matured. The second began in A.D. 60 700, accelerating through the high medieval perio in Europe. It ended around A.D. 1200-1300.

Both previous population explosions did du fizzle upon reaching the limits of then-availab technology. Indeed, they overshot it. Disturbi thought: Both ended in catastrophe—invasio (Germans, Mongols), disease (the Black Death).

Could that happen again? Are you a congenit optimist? Or a congenital pessimist?

Put it this way: The good news is that, on pre ent trends, there will be a lot more readers FORBES here in 2050. The bad news: They migh have to read it standing up. ■

Research: Edwin S. Rubenstein,
research director, Hudson Institute, Indianapolis.
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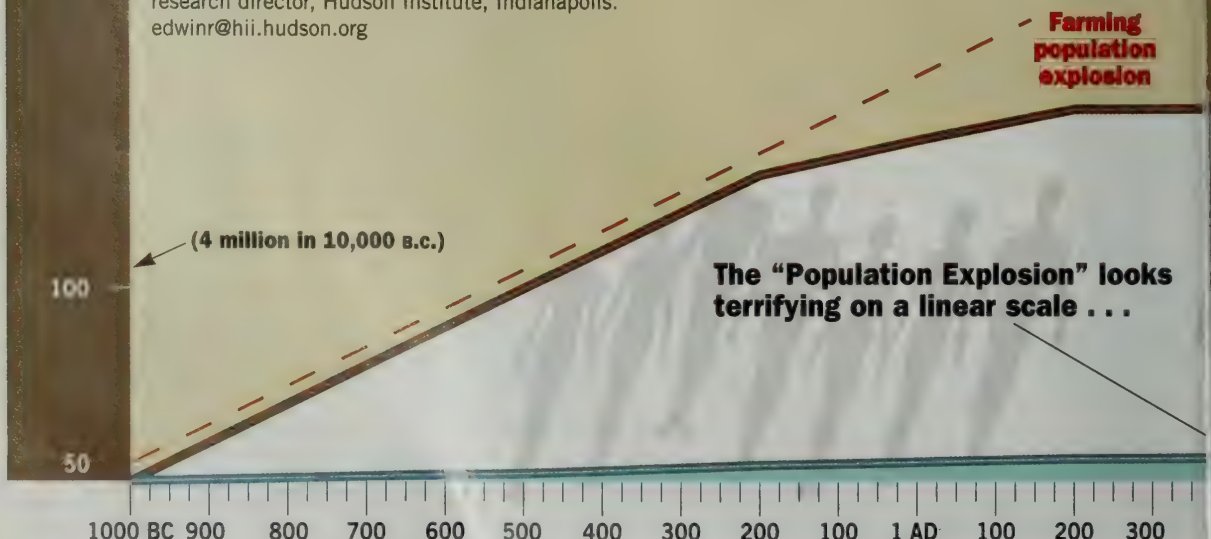
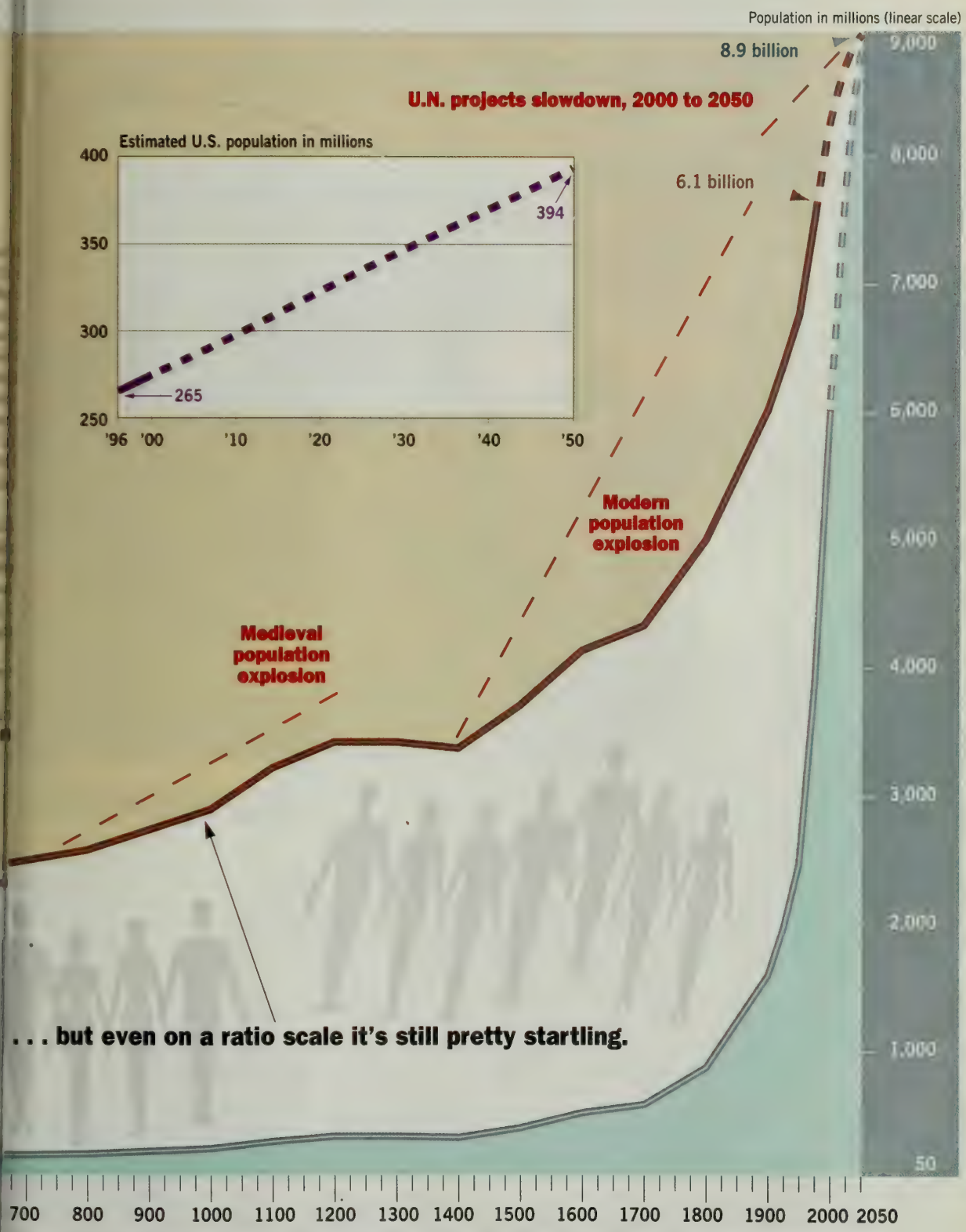


*Ratio scale shows constant percentage growth rate as a straight, upward-sloping line; linear scale shows equal absolute increases, so steady percentage growth rate appears to



Sources: Colin McEvedy and Richard Jones, Atlas of World Population History; *U.N. Secretariat,* World Population Prospects: The 1998 Revision; *Census Bureau.*

Does reclining mean declining? La-Z-Boy hopes not.

Company at a crossroads

By Kelly Barron

WHEN CHARLES KNABUSCH died at 57 of a heart attack on a North Carolina golf course a little over a year ago, a family dynasty ended. La-Z-Boy Inc. was founded by his father, Edward, and Edwin Shoemaker, one of dad's cousins; Shoemaker, age 90, died soon after Charles did. And when Charles' wife, June, asked for a seat on the board, she was turned down.

"This is not a family business anymore," declares Patrick Norton, 76, an industry veteran who was elevated from senior vice president of sales and marketing to chairman after Knabusch's death. La-Z-Boy has been a public company since 1972, and June Knabusch owns roughly 2% of the 52.7 million shares.

Norton, Kiser sample the merchandise **"Not a family business anymore."**

Norton was no outsider: He's been at La-Z-Boy for 17 years. Still, it was a big change for the town of Monroe, Mich. (pop. 24,000). Charles Knabusch wasn't just the boss. He was almost family in the town whose Holiday Inn has a La-Z-Boy recliner in every room. Charles Knabusch was a shy but friendly man who enjoyed nothing more than rubbing elbows with his employee-neighbors in the company cafeteria.

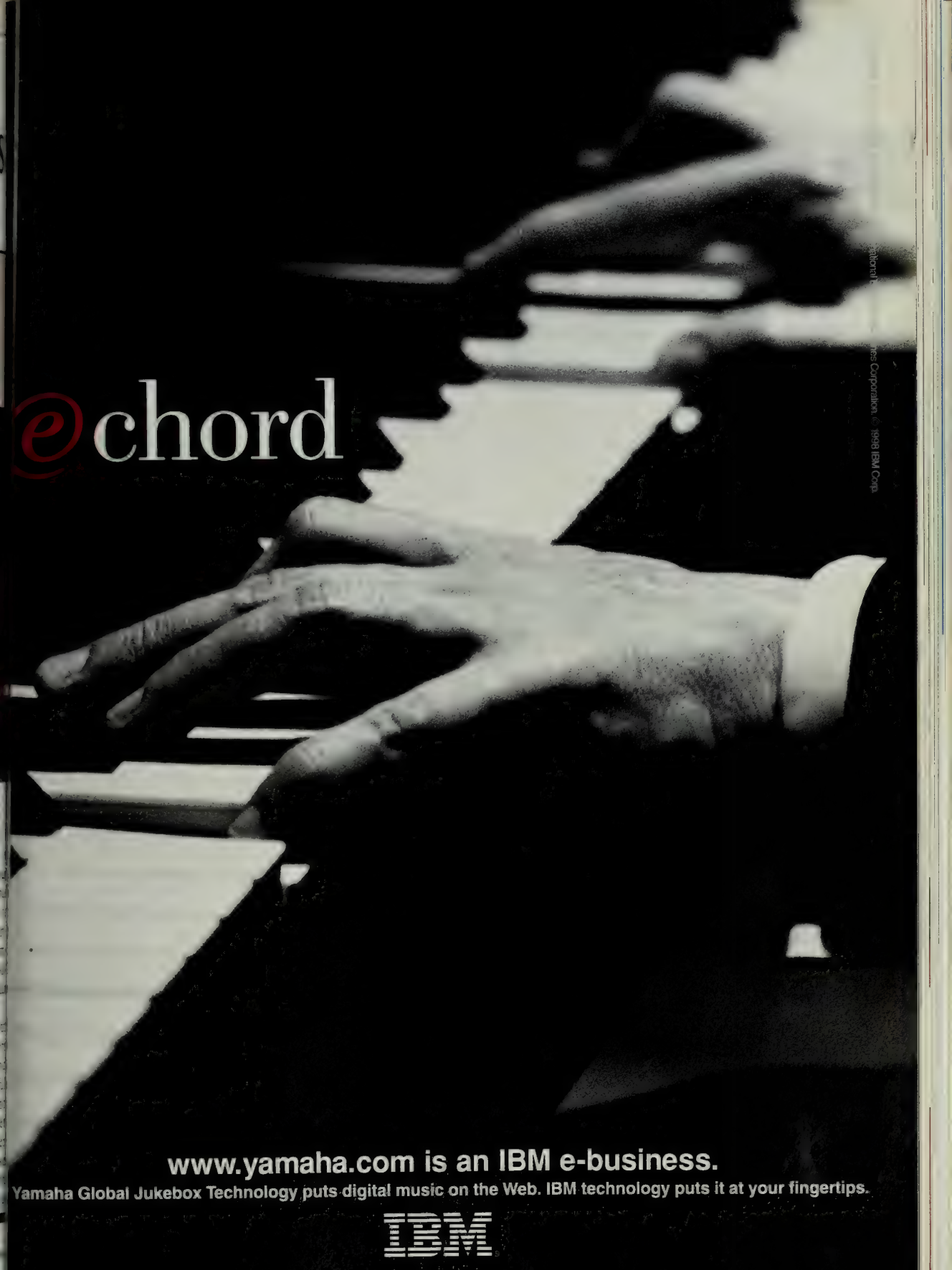
Things settled down a bit when Norton elevated Gerald Kiser, a strong operational executive, to president and chief operating officer.

Kiser takes over a company that is at a crossroads. It has done well. Sales have increased without a break for the past 17 years. It is today a $1.2 billion (revenues) company. Since 1985 La-Z-Boy has diversified from its trademark recliners, acquiring five furniture makers, and now sells everything from dining room sets to entertainment centers, under names such as Hammary and Kincaid. There's also an expanding chain of licensed La-Z-Boy stores that sells an array of chairs, sofas and tables. But recliners still constitute about a third of revenues.

With a dominant 30% share of the recliner business, it's getting harder for La-Z-Boy to generate additional growth from that business. But in repositioning itself, La-Z-Boy runs the risk of diluting a powerful franchise and becoming just another furniture company. "We sweat blood every time we advertise that we don't want to be a chair company," says Norton, kicking back in a blue upholstered model in his office.

In the chair line, the company creating more styles that appeal t women—particularly those under ag 50. It has partnered with the cornba "painter of light" Thomas Kinkade t create upholstery inspired by his ar work. It also offers smaller, more fem inine-size chairs with retro-looking si houettes patterned after styles popul in the 1940s.

But this still leaves La-Z-Boy wit a classic image problem. Recline are a narrow product line, an though La-Z-Boy is a powerfu name it doesn't lend itself easily t brand extension. How do you ge hipper and broaden your gende appeal without turning off all thos guys who associate the product wit a six-pack and some rip-roarin action on the TV set?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U.S. prosecutors may have a new intimidation tactic. Threaten to put a company's attorneys in jail.

First, indict all the lawyers

By Janet Novack

PHILIP ANDERSON

THIS MONTH THREE FORMER executives of Baptist Medical Center of Kansas City, Mo. are slated to go on trial in federal court in Kansas for conspiring to pay illegal kickbacks to two osteopaths. What makes this trial unusual is that two attorneys who did legal work for Baptist Medical will also be there—as defendants. The charge: conspiring to defraud the government.

A decade ago prosecutors began going after lawyers who represent drug dealers and mob figures. Now it seems that prosecutors are trying out a more chilling practice: pursuing lawyers representing clients with regulatory problems. If you have a reimbursement dispute with the Medicare administration, and the government takes issue with your position, you could wind up in jail. Just for good measure the government can indict the legal expert who counseled you on getting the reimbursement.

Tax law can work this way, too. Set up a business deal designed to hide income or assets from the IRS, and the government can send you to prison. The lawyer who helps you set it up can also be charged with obstructing the IRS, with up to three years' imprisonment—if the government believes he knew you had an improper purpose.

Baptist Medical's attorneys were indicted on the charge that they drafted "sham" consulting contracts between Baptist Medical and the two doctors (who were also charged). These contracts, according to the indictment, were designed to conceal that the hospital was really paying the docs $150,000 a year to refer nursing home patients to the hospital—a violation of the Medicare anti-kickback law. The indicted lawyers, S. Ruth Lehr and Mark Thompson, insist they were providing legitimate legal services. The indictment says Lehr illegally helped the doctors by eliminating any references in their contracts to patient referrals.

Is it now a crime to write a contract that doesn't reveal all the ulterior motives of the people signing it?

"This prosecution strikes at the tradition of going to lawyers to weave your way around regulatory requirements," says Mark J. Biros, Washington managing partner for Proskauer Rose. "It will have a chilling effect on how attorneys advise clients."

In addition to indicting Lehr and Thompson, prosecutors have publicly named three other lawyers as "unindicted coconspirators." Two of them are prominent Baltimore attorneys hired to advise Baptist Medic *after* the government investigati began. One of them, David Quee is a former U.S. Attorney for t Middle District of Pennsylvan who specializes in helping comp nies comply with the insanely cor plicated Medicare law.

Look at the anti-kickback la Even though paying for referrals generally illegal, it provides certa "safe harbors" that make it legal f a hospital to pay a referring phys cian for other services he provid the hospital, like consulting. But hospital can't rely on the "sa harbor" if the doctor doesn't pe form those services. Okay, but ce tain nonsafe-harbor contracts wit referring doctors can be lega too—provided that inducing refe rals isn't a purpose of the contract

Get it? Neither do we. Apparen ly, lawyers are now supposed to v their clients' motives and perfor mance, as well as their paperwork

According to the indictmen Thompson told hospital executive to communicate about the docto through attorneys, so the communi cation would be privileged. To pros ecutors, that advice was part of th conspiracy. "That's advice lawyer give every day to clients under inves tigation," protests John T. Boese, government contracting fraud exper with Fried Frank in Washington.

Breckinridge Willcox, a forme U.S. Attorney for Maryland, sees th Kansas case as an extension of a dan gerous trend: the government i attempting to breach the attorney client privilege in business cases Companies that wish to settle wit the government—as Baptist Medica did for $17.5 million—are increas ingly being pressed to waive that priv ilege. That exposes the lawyers t prosecutorial scrutiny.

Looks like dirty pool to us. ■

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The debut of a common currency is fueling deal-mania in Europe. These Texas boys want to be part of it.

Dallas comes to Düsseldorf

By Richard C. Morais

THE RECEPTION LOBBY is swathed in white sheets, and the just-acquired 18th-century Dutch mirror, in walnut with inlaid boxwood, is leaning against a commode waiting to be hung. Hicks, Muse Tate & Furst Inc.'s London office is not quite solid yet. In November the Dallas-based buyout specialist spectacularly backed out of an $860 million deal to buy business-publishing assets from Pearson Plc.

But these are early days, and this bunch of Texans is in Europe for the long haul. Chief operating officer and partner John Muse, 47, has moved to London to run the new European operations. The LBO firm, best known for radio acquisitions (FORBES, *June 1, 1998*), is currently working on two European deals, each in the billion-dollar-plus category.

It will launch a $1.5 billion European fund for buyouts in the first quarter of 1999, but that's only part of the resources Hicks, Muse brings to the table. The company just completed a $4 billion global fund that can invest up to 30% outside the U.S. "We're seeing five to ten interesting deals a week," says Muse.

MICHAEL BIRT

John Muse in London

Cooking up pan-European deals.

"The reason we're doing the European Fund," he says, "is that monetary union will for the first time create the ability to execute pan-European strategies. That's our thing."

But where? Media is Hicks, Muse's expertise. In Hicks, Muse's $1 billion Latin Fund are media deals like Ibero-American Media Partners, L.P. Ibe American is a joint venture formed invest in media properties in La America, but also has the option invest in Portugal and Spain. T latter, should it happen, could be t start of a so-called European platfo on which Hicks, Muse could attem to build a pan-European Knigh Ridder. Except in Britain, Europe local papers have yet to discover t joys and presumed efficiencies of U.S style regional newspaper chains.

Hicks, Muse won't do radi "There are a lot of restrictions. In t U.K., for example, t government still operat radio, and we can't ow more than 25%," sa Muse.

Hicks, Muse isn't bunch of cowboys out show the Europea how to do things. knows how to opera abroad. Two of t 1989-founded Dall firm's earliest backe were Europe's Cred Suisse and S.G. Warbur It has invested $1.2 bi lion in Central an South America.

The partners figure th learning is on both side In Europe outdoor adve tising—including "stree furniture," the ac wrapped around Frenc public toilets and Germa bus stop shelters—is mor developed than in th U.S. It commands $4. billion, 5.5% of Europe total advertising spend ing. In the U.S., by con trast, outdoor advertisin accounts for just 1.8%, c $1.8 billion, of the tota Muse is interested i bringing European out door ad techniques to U.S. cities. Sinc August, Hicks, Muse has acquired tw U.S. billboard companies throug Chancellor Broadcasting Corp.

Media isn't the only game thes boys play. Last summer the Dalla partners bought Britain's Glas Group, a maker of automotive infor mation services software, for $20

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million. The company collates everything from repair costs to car valuations. In October, Hicks, Muse bought a Danish seed company for $49 million.

The company already has done at least one major Europe-focused deal. In March 1993 Hicks, Muse bought Berg Electronics Corp., which had been DuPont's electronics connectors business. Working with a Hicks, Muse management affiliate, the Dallas partners added several acquisitions to Berg. After investing just $650 million, in a mixture of debt and equity, it sold Berg Electronics for $1.85 billion to France's Framatone Connectors International. Eat your heart out, DuPont.

What about the left-of-center politicians who've been coming to power and the social turmoil that could well follow monetary union? Does that worry the Texans?

"I don't care what your politics are," Muse replies. "In the end, people get pragmatic to survive." He is convinced that whoever rules, Europeans will lose some of their taste for fixed-income paper and turn more toward equities. That's Hicks, Muse's business. It spiffs up companies to make them more palatable to equity investors.

Injecting more funds into equities will result in cumbersome European conglomerates shedding nonessential assets. "Logic tells you the next step is a demand for better performance. European conglomerates will rationalize assets as they ask, 'What is our core competence?' You've already seen Siemens, Hoechst and Philips do it. The phenomenon will develop further. The gravitational forces are hard to resist."

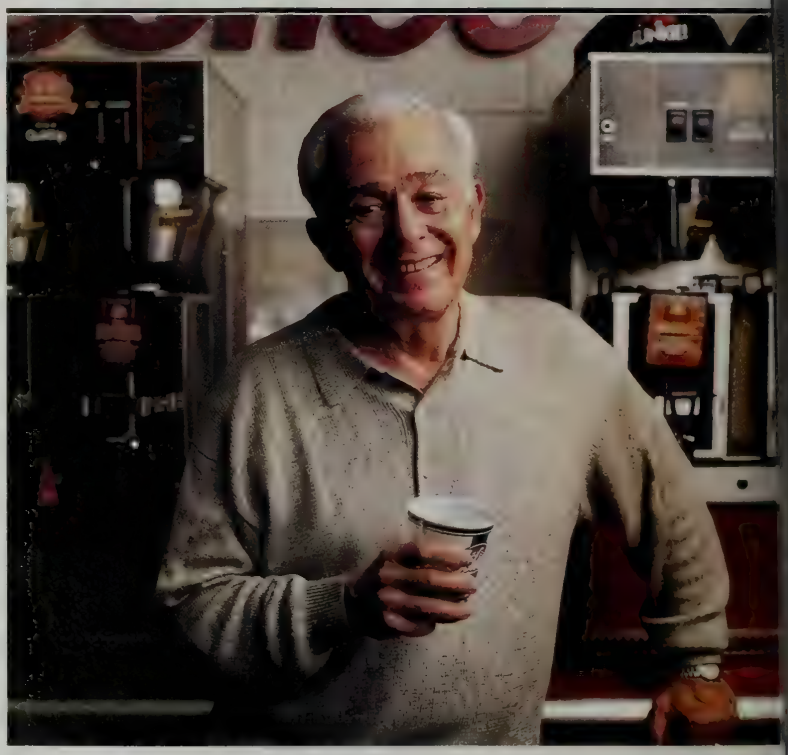
Count on the Texans to give the process a bit of a boost. "Hicks, Muse is expert at buying businesses that aren't for sale," observes James Mills, chief executive of Mills & Partners Inc., the LBO company's management affiliate.

Europe's old boys have a way of closing ranks and cutting out brash newcomers, and John Muse is ready to deal with that. "In some geographies," he says, "we'll be reluctant to invest without a local partner. Call it schmuck insurance." ■

Chester Cadieux's QuikTrip convenience stores are the envy of his industry. Yet he makes no secret of his secret.

A very smart retailer

By John Gorham

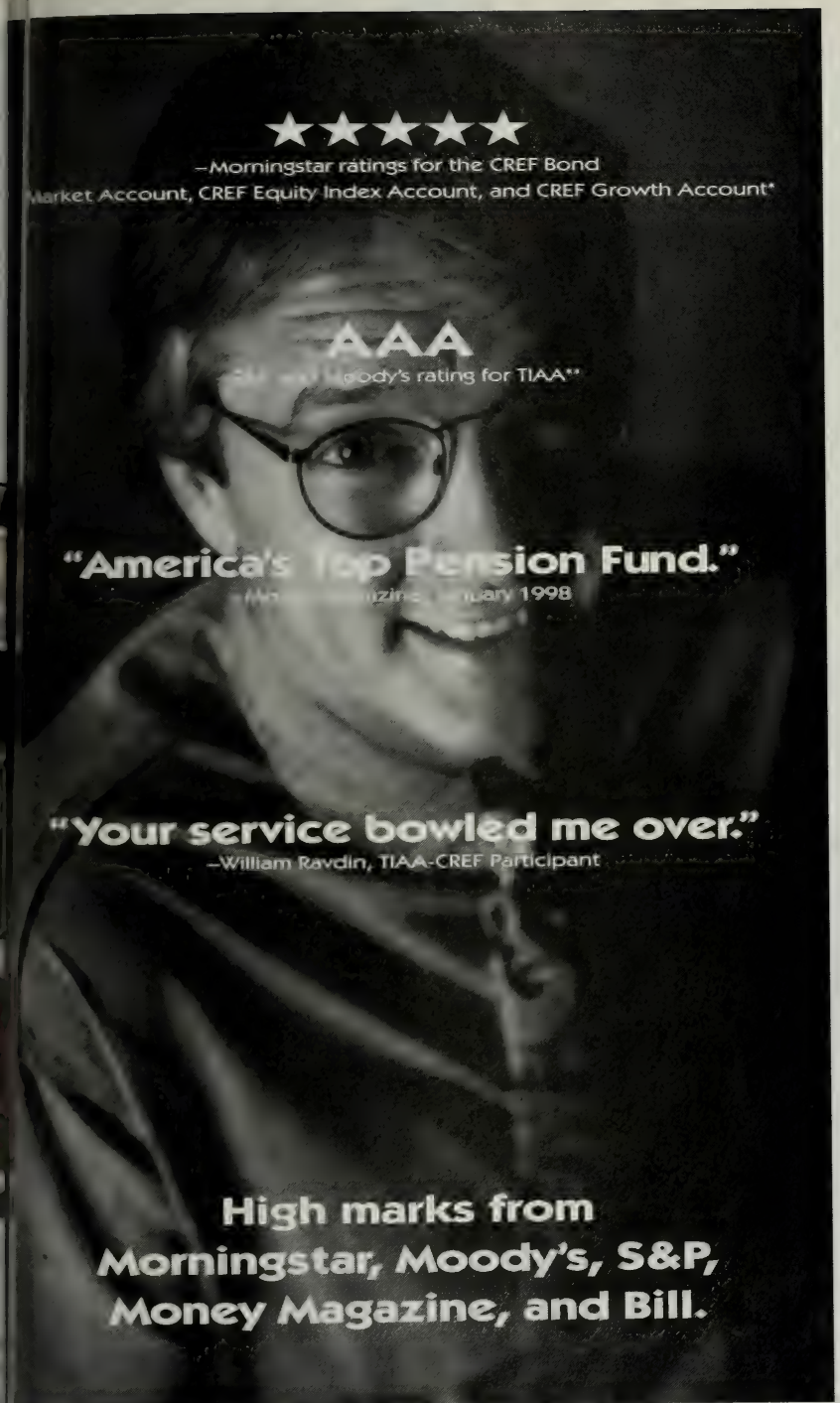


QuikTrip Chairman and Chief Executive Chester Cadieux
Realized long ago that convenience is a commodity.

CHESTER CADIEUX, chief executive of convenience-store and filling-station chain QuikTrip Corp., is glaring mad. He's standing in front of store number 56, just off Interstate 244 outside of downtown Tulsa. "It's too ugly," he mutters, pointing to the store's red-and-white facade. Bye-bye, number 56. It is slated to be closed this year.

It's not that number 56 is losing money. Cadieux says it netted $80,000 last year—three times the industry average of $26,100. "A lo of people would say closing numbe 56 is just insanity," says Cadieux They would, and they'd probably sa the same about 44 other stores, al profitable, that Cadieux plans to clos over the next two years.

There's shrewd merchandisin method in Cadieux's apparently cava lier attitude toward profits. The stor closings are part of a strategy tha Cadieux, 66, has been honing for 2



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*ice Morningstar Inc November 30, 1998 Morningstar is an independent service that rates mutual funds and variable annuities The top 10% of funds in an investment category receive five stars and the 22.5% receive four stars Morningstar proprietary ratings reflect historical risk-adjusted performance, and are subject to change every month. They are calculated from the account's three-, five-, and ten-year age annual returns in excess of 90-day Treasury bill returns with appropriate fee adjustments, and a risk factor that reflects performance below 90-day T-bill returns. The overall star ratings referred to above *Morningstar s published ratings, which are weighted averages of its three- five-, and ten-year ratings for periods ending November 30, 1998 The separate (unpublished) ratings for each of the periods are:

Period	CREF Stock Account	CREF Bond Market Account	CREF Social Choice Account	CREF Global Equities Account	CREF Equity Index Account	CREF Growth Account
	Star Rating/Number of Domestic Equity Accounts Rated	Star Rating/Number of Fixed Income Accounts Rated	Star Rating/Number of Domestic Equity Accounts Rated	Star Rating/Number of International Equity Accounts Rated	Star Rating/Number of Domestic Equity Accounts Rated	Star Rating/Number of Domestic Equity Accounts Rated
3-Year	4/2,262	5/748	4/2,262	4/490	5/2,262	5/2,262
5-Year	4/1,515	5/525	4/1,515	4/286	N/A	N/A
10-Year	4/769	N/A	N/A	N/A	N/A	N/A

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Fill 'er up
Making the majors sweat.

years. Here's what he thinks: Even if a store is profitable, it is less likely to build repeat business if it is unpleasing to the eye and out-of-date; that makes it a lousy long-term investment.

Cadieux runs 330-odd stores—mostly in Tulsa, Atlanta, St. Louis, Wichita, Des Moines and Kansas City. They are high-volume, low-margin retailers of gasoline, beer, soda, junk food and cigarettes. He wants customers to think of his locations not as shops of last resort but as places they enjoy visiting.

The high standards pay off. In fiscal 1998 Cadieux's closely held QuikTrip sold $1.9 billion in convenience items—a fivefold growth in a decade—generating cash flow of $89 million and net income of $32 million. This, at a time when many of the major convenience chains like Circle K, National Convenience Stores and Southland Corp.'s 7-Eleven filed for bankruptcy and are just now recovering.

Cadieux understood that as convenience stores proliferated, convenience would become a commodity. "Convenience has value [only] when there isn't much of it. We just focus on being good retailers," he says.

Cadieux is regarded as something of a heretic in the trade. Most players, like Southland and big oil companies such as Texaco and Mobil, still believe customers will pay a premium for the convenience and the branded gasoline. Stores are cramped and prices are high. They get the premium prices, but they don't get volume.

Result: The average QuikTrip store sold $2 million of merchandise and 3 million gallons of gas last year. The average store for Southland, which franchises and operates 5,100 7-Eleven stores in the U.S., sold $955,000 of merchandise. Convenience stores th[at] also sold gas averaged 720,000 gallo[ns] Says Eric Spiegel, a consultant f[rom] Booz, Allen & Hamilton: "All t[he] majors want to study them. Th[ey] know QuikTrip outperforms ther[s]

People who can watch any TV want to watch Hi[t]

DANNY TURNER

but they don't know why."

Now they do. Whether they can copy the master is another question.

Cadieux's father, of French-Canadian descent, moved from Chicago to Tulsa and worked for a small oil company. Cadieux and a schoolmate first opened a store in a small Tulsa strip center in 1958, a few years after Cadieux graduated from the University of Oklahoma. The initial capital was $16,000; Cadieux borrowed his $5,000 share from his father. Later, suppliers came up with enough capital to help him expand the chain.

Initially Cadieux copied competitors: high prices and little selection. After four years in business, the company was eking out a profit of $25,000 on sales of $1 million, and competitors were springing up all over the place.

After expanding over the next 15 years or so, Cadieux realized the business was overbuilt. Then he exhibited real foresight. First he narrowed his focus to quantity items: branded beer, soda, cigarettes, coffee, candy and later gas. Out went slow sellers like canned vegetables. He slashed prices, reducing his in-store gross margin to a current 25.5%, versus 32% for the industry.

Cadieux started adding gas in the early 1970s, but made it a major offering only in the late 1980s and early 1990s, when oil companies began serious encroachment on convenience stores. Here again, he takes a smaller gross margin to move more merchandise. His cut is 9.5 cents per gallon, compared with 15 cents for most major oil companies. But his stores sell, on average, up to 75% more gas than the major oil company stations, estimates Booz, Allen's Spiegel. QuikTrip is the biggest gas retailer in Tulsa and Kansas City and the third-biggest in St. Louis and Atlanta, according to New Image Marketing of Fort Myers, Fla.

When he speaks of keeping his stores attractive, Cadieux doesn't just mean decor. He believes a service business should be manned by smart, motivated people. A QuikTrip store manager earns, on average, $48,000, compared with $25,000 for the industry.

Cadieux is planning a push into Dallas, 7-Eleven's heartland. His potential competitors are nervous, but they don't seem to be copying Cadieux's strategy very much. Maybe it's because they are run by pencil pushers rather than by merchants. ■

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▶ up & COMERS

For 30 years, Philip Rollhaus has taken one wrong turn after another in the highway-safety business. Now, at last, he may be on the right track.

Crash course

By Brett Nelson

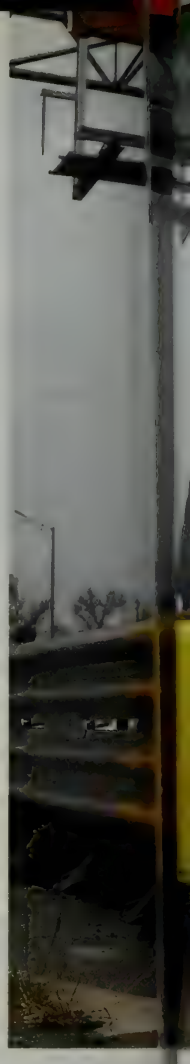
Most entrepreneurs take a while to find their focus. Philip E. Rollhaus Jr. has taken the better part of three decades. He is founder and chief executive of Chicago-based Quixote Corp., which sells highway crash guards and cushions.

Under his leadership, the company has lived up to the idealism—and folly—of its namesake. In his time, the stocky, bright-eyed, 64-year-old Rollhaus has dabbled in court-reporting technology, compact-disc manufacturing (DMI), a still-unproven method for manufacturing artificial human blood, and seismic bridge-bearings (a joint venture with Italy's FIP Industriale). All but DMI resulted in substantial losses and writeoffs—and took critical attention and resources from Quixote's highway-safety business.

Even with all those distractions, the company has a 90% share of the U.S. market for crash guards and cushions that pad bridge abutments, toll booths and slow-moving highway maintenance vehicles—earning $6 million on $56 million for the fiscal year that ended last June. Imagine where the company might be today if Rollhaus had stuck exclusively with road safety after a crackpot inventor burst into his office at a small, Chicago-based venture capital firm in 1969, hoping to develop car bumpers filled with water.

But then, Rollhaus has been something of a vagabond entrepreneur all his life. After leaving the Navy, he went to Paris in 1960 to write fiction. Instead he founded a literary magazine, which he financed by opening the city's first coin-operated laundry. He also opened a moped messenger service. After scraping by, Rollhaus came back to the States to try his hand at venture capital. That's when he convinced the inventor to swap the patent rights on the aqua-bumper for a 30% stake in a newly formed company, Energy Absorption Systems. He had already raised $400,000, mainly from friends and a San Antonio investor.

In the early 1970s, losses piled up and sales hovered around $3 million; the company nearly went under twice. Rollhaus eventually scrapped the cumbersome water bumper—which only worked for collisions up to 20mph—in favor of cushioning stationary objects like lane dividers. For the remaining decade he and some hired engineers



▶ follow the money/ VENTURE CAPITAL

Status seekers

IF YOU'RE PLANNING to hook up with a venture capital firm, everyone knows you should reach for the top drawer, right? The most famous firms have plenty of money to throw around. Their connections can lead you to management talent, big-ticket customers, strategic partners and, of course, prestigious investment bankers who can take your company public at the highest valuations. They're pretty good buzzmeisters too, hyping your startup when the word needs to get around.

Surprise: It turns out that in the public markets, at least, pedigree is no guarantor of success. Sure, some of the best-known firms backed several of the most spectacular successes of late: Kleiner Perkins Caufield & Byers, Sequoia Capital and Oak Investment Partners backed Amazon.com, Yahoo and Inktomi, respectively; but these represent grand slams in portfolios full of doubles, singles and strikeouts. On the whole, the best records, as measured by average annual return of initial public offerings, even including these blockbusters, did not belong to the flashiest venture capital outfits *(see table, opposite)*.

That sounds like heresy, of course. But it's the conclusion of Venture Economics Information Services, a Newark, N.J.-based research firm, which calculated the average annual return of more than 300 venture capital firms, based on how the share prices of their portfolio companies performed since going public some time over the last five years. (The survey does not track performance pre-IPO; since there are no disclosure requirements for the firms, not all publish their internal rates of return.)

The results: The best-known venture capital firms weren't always top performers; quite a few landed in the bottom half. When companies were screened for four or more IPOs, Kleiner Perkins showed up in the middle of the pack, posting just a 32% annual return, beaten out by the likes of El Dorado Ventures, Boston Capital Ventures and Trident Capital. Some notable firms fared very badly—Weiss, Peck & Greer, New

TOBY BLACK

Tilting at errant cars: Quixote's Philip Rollhaus.

improved the aqua-barrier design, adding new products like protective sand-filled barrels and the first collapsible crash-cushions. In 1981 the company went public as Quixote Corp., raising $8 million. Why name a company after Cervantes' foolish knight? "At times things looked pretty hopeless," says Rollhaus. "I liked [his] pathetic nobility."

An apt description of Rollhaus' efforts to win government support for highway safety, the lifeblood of Quixote's revenues. Over the last 25 years company executives have made about 600 lobbying trips to Washington. But until the 1990s federal and state funds for highway safety were tight.

Meantime, Quixote's patented technology got better and better—saving, by Rollhaus' estimates, maybe 30,000 lives. In the latest models, plastic cylinders inside the cushions absorb energy from collisions. If struck at a shallow angle, some cushions can redirect an errant car back onto the road; if struck head-on, they can bring a car speeding at 65mph to a stop within 30 feet, with minimal injuries to the occupants.

Is Rollhaus finally on track? Quixote is well positioned to cash in on the 1998 federal highway bill, which provides $555 million a year for road-safety projects over the next six years. After shedding its last extraneous businesses, Quixote bought out crash-cushion rival Roadway Safety Service and recently spent $2.8 million to buy Highway Information Systems, which uses electronic billboards and dedicated AM radio stations to warn drivers about accidents and bad weather. Rollhaus is also offering, through 74 distributors worldwide, an array of new products from snow-plowable highway reflectors to high-tech anti-icing systems for bridges. This business is finally looking more businesslike—and less quixotic—every day. ■

Enterprise Associates and Menlo Ventures among them.

Why? Partly because the better-known outfits get more deals, take more chances—and spread their attention more thinly. A Kleiner Perkins has a better chance of scoring with a blockbuster like Excite, and striking out with lemons like Visioneer, Inc., which develops scanning software (shares have tumbled 92% since the public offering), and On Technology, a software developer for local area networks, down 93% to a recent $1. More deals mean less risk but also a smaller chance of a huge average return.

Some folks claim they get more personal attention and better strategic advice from smaller venture capital outfits. "The top firms are just okay," says Robert Bernard, chief executive of Whittman-Hart, an information technology provider for businesses, backed by Frontenac Co. and Platinum Venture Partners, both of Chicago. "Smaller firms are definitely closer and more intimate." Bernard's company has done well since its May 1996 public offering; the stock is up nearly sevenfold.

Sometimes, but not always, entrepreneurs can get more generous terms from a smaller venture capital firm. Harold Ruttenberg, founder and chief executive of retailer Just For Feet, Inc., had many premier outfits wooing him, but turned them down because they wanted too big a piece of his company. "Some venture capitalists are greedy," he says. "They want to put in their own people and ideas." Ruttenberg was finally won over by Weston Presidio Capital in San Francisco, which was willing to take an operational backseat.

Don't avoid prestigious venture capitalists; they can still make amazing things happen. But they aren't the only game in town.

—Luisa Kroll ■

Does pedigree pay off?

Hiring a venture capital firm with a glittering reputation is no guarantee of stock market success. Here are samples of performances turned in by better-known shops—and lesser-knowns.

Firm	Average annual IPO return 1994–98
Kleiner Perkins	32%
Weiss, Peck & Greer	5
New Enterprise Associates	3
Menlo Ventures	–5
Institutional Venture Partners	–9
El Dorado Ventures	194
Platinum Venture Partners	47
Weston Presidio Capital	47
Boston Capital Ventures	42
Trident Capital	41

Source: Venture Economics Information Services. Based on stock performance of venture-backed companies that went public between 1994 and Nov. 1998. Does not include overall portfolio return. Companies merged or sold during that time are not included; nor are venture capital firms that backed fewer than four companies. The average is equal-weighted.

Stacey Lawson had no customers, no product, no capital—just one clever idea ar a lot of chutzpah. She turned those two things into a company worth $45 million.

Bootstrap

By Bernard Condon

RICHARD MORGENSTERN

Scrap into gold: Lawson and Major relied on ingenuity and sheer grit.

Classic bind for a would-be entrepreneur: You have no customers because you have no product. No product because you don't have the capital to develop it. No capital because the venture capitalists want to see customers first. How to break out of that vicious circle? Look at how Stacey Lawson did it.

Lawson grew up in the lumber mill town of Port Angeles, Wash., longing to get out and make something of herself. "People lived their lives by default," she says. "They never took risks. I never wanted to be ordinary."

Inspiration hit after she quit an engineering job at IBM to get an M.B.A. at Harvard. While writing a mock business-plan for a class, she adapted an idea from former IBM colleague John Major, who oversaw engineers designing 3-D computer models of machines that make disk drives. The engineers spent hours thumbing through catalogs from parts suppliers for just the right motors, gears and pulleys—then meticulously drew the parts in 3-D on the screen. They could save a bunch of time, Major figured, if there were a single CD-ROM catalog with the parts already in 3-D. You could sell the catalog to engineers at Deere, Caterpillar and Boeing, too.

Lawson took the idea a step further. Put the catalog on the Internet so you can update it quickly. The way to make money was to charge both parts suppliers and the end users. By the time Lawson graduated in 1996, Major, now 45, agreed to team up to launch a company, InPart.

Now to convince the skeptics—starting with investors. Lawson proved to be quite "resourceful" with a sales pitch. "We've just completed a study with Harvard University," Major overheard her saying over the phone from the cramped San Jose, Calif. apartment that served as the office. "Deere is *very* involved with us in turning it into a business." News to Major.

Lawson, then only 25, kept up the big talk through 25 unsuccessful meetings with venture capitalists. By then both Lawson and Major had exhausted their credit cards—$65,000 worth—and InPart looked like a stillborn idea.

Finally a big break came in October 1996. Palo Alto, Calif.-based Asset Management handed over $750,000 in seed capital for an initial 43% stake. That was enough to hire an experienced chief executive, as well as software developers, to convince Major to quit his job and to rent a real office.

Next, trying to find suppliers willing to pony up an average $20,000 a year for the service. Typical was the response by a gear and couplings maker, Stock Drive Products in New Hyde Park, N.Y.: "You should be paying us." Lawson had to think fast, and took out a list of 50 partsmakers that were "talking" to InPart. "Do you want to lead or follow your competition?" she challenged. Within a week she had a contract. Subscriptions from six suppliers convinced venture capitalists chip in another $6 million, bringi ownership by outsi investors to 55 Other suppliers beg piling on—33 them in a year, alo with 200 corpora customers each payi more than $1,000 p computer for the se vice, which debut last March.

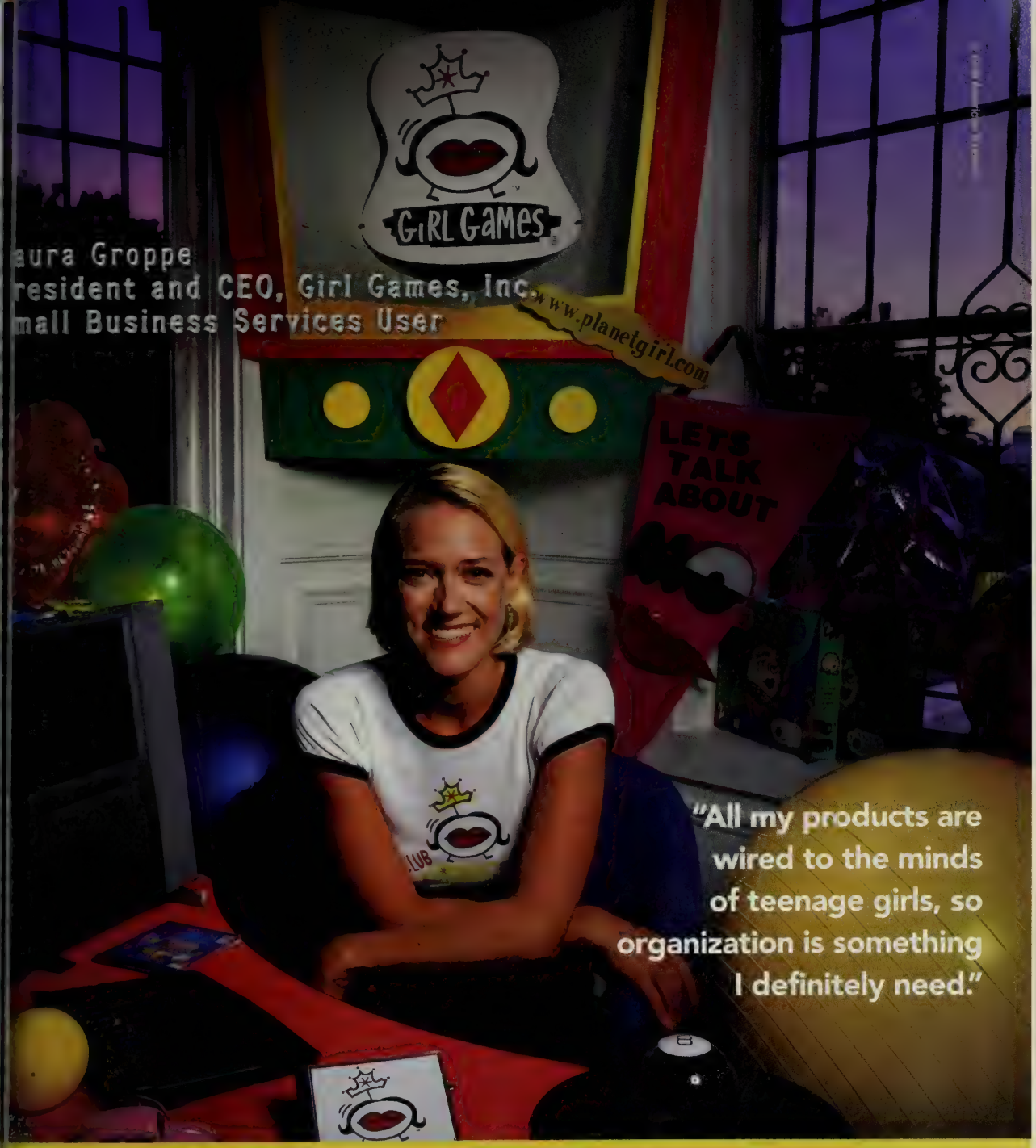
Only three mont later Lawson receiv an offer for InPart fro Steven Walske, chi executive of Parametr Technology Corp., t big vendor of softwa for computer-aid design. How much could s get for a startup on its way losing $3 million on just $ million in its first year?

Instead of dwelling o InPart's vulnerability, Lawson exploi ed Parametric's weak points: She kne that growth had slowed and Walsk wanted a piece of the emerging $2 billion market for helping compani track parts from the design la through procurement to the factor floor. InPart, Lawson argued, was foothold. Walske dismissed the idea.

"The problem with you, Steve, Lawson shot back, "is you're too clos to your engineers."

At a second meeting Walsk offered 2.4 million shares of Para metric, worth $38 million. Lawso held out for $45 million. Walsk agreed to a proviso that if the 2. million shares didn't rise to at leas $45 million in the next year, he' pay more shares to make up the dif ference. Which would make Lawso and Major each worth at least $4. million.

Stock options worth more than $ million may persuade Lawson to stic with Parametric. On the other hand she may simply find a new gig. "I'm sure I'll do it again," she says. "Th entrepreneurial fire is burning." ■



She flies around the country to learn what girls like in interactive media. And since this doesn't always lend itself to running a business, American Express® Small Business Services organizes her expenses on a Quarterly Management Report, helps finance the video equipment she uses to document customer behavior, and lets her make frequent Card purchases of office equipment and tiaras. Tiaras? "It's a girl thing."

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It seems that Amazon.com is going to suffer invasions onto its turf by specialty booksellers—like this one.

What the doctor ordered

By Kerry A. Dolan

ERICA FREUDENSTEIN

Prescription for success: Bhan (right) and fellow cofounders of Medsite.

Sundeep Bhan spent two years at the University of Pennsylvania as a premed student before deciding his heart wasn't in it. Instead of focusing on sick people or organic chemistry, he kept coming up with moneymaking ideas—selling T shirts at rave concerts and Filofaxes to fraternities and stationery stores. He graduated with a degree in communications and a minor in business.

Seven years later Bhan, 26, is back in the medical world. But this time he's trying to get doctors and nurses to buy medical books from MedBookStore.com, the Manhattan-based on-line retailer he founded in September 1997 with three college friends. The idea grew out of their effort to market a medical spell-checking program over the Internet. To draw traffic, they created an on-line medical search engine called Medsite.com, which rates and reviews medical and health-related Internet sites—and was getting 250,000 hits a month after six months.

Bhan saw a bigger market: the 4 million doctors, medical students, nurses and other health care professionals in the U.S., who spend $1 billion a year on medical books, and their peers around the world, who represent perhaps another $1 billion in sales. Average purchase at MedBookStore: about $150. With $250,000 from the sales of their spell-checking software, Bhan and his buddies formed Medsite Publishing, Inc.

MedBookStore.com has spent virtually nothing on advertising or marketing. It has reached med students by developing on-line bookstores for five U.S. medical schools. Through partnerships with 250 medical organizations and Web sites—including the American Medical Association, Physicians Online and Nursing Spectrum—Bhan says he has access to more than half the estimated 350,000 doctors and 835,000 nurses who are on-line nationwide. Medsite offers the organizations a 5% cut of book sales.

Just what the doctor ordered. Largely because of those partnerships, Medsite ended 1998 with sales of $3 million, up from $300,000 the year before. Bhan is looking for $10 million in 1999.

A healthy 50% of orders are from repeat buyers. With 88,000 medical books and CD-ROMs at hand, MedBookStore.com claims to offer the widest selection of tit on or off the Intern 85% of all books a available the next bu ness day. Need som thing a tad mo arcane, like *Nucle Medicine Self Stu Program IV: Overvie of Nuclear Oncolo Topic I*? Yours with one business day f $13.50. If you shop v Amazon.com—Bhar biggest competitor— will take four wee and cost $15.

Medsite can kee prices low because has an advantageou deal with several sma suppliers and a bi medical book distribu tor. After a custom places an order, Mec BookStore relays it t this distributor, whic ships the book bu doesn't get paid until after Medsit does. Bhan refuses to name his distrib utor, fearing that some of its tradition al retail customers will find out abou his agreement and pressure the distrib utor to dump him. (It already hap pened to Medsite once.) To cut cost Bhan and his partners—all India expatriates—created a sister compan to design and update the software i Bangalore, where programmers wor for one-fourth of U.S. wages.

Bhan is pushing abroad for othe reasons: Twenty percent of his busines comes from 60 countries other tha the U.S. where English is becomin the lingua franca of medical schools.

How to fund all that expansion Bhan raised an initial $1 million fron family and friends, and $3 millio from venture capitalists in December for an undisclosed share of the com pany. He's still looking for more ven ture capital.

Like his role model, Jeffrey Bezo of Amazon.com, Bhan aims t expand beyond books and CD-ROMs This year he plans to offer medica journal subscriptions, supplies such a stethoscopes and eventually a host o services for busy doctors and nurse —everything but vacations. ■

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Some assets are invisible to accountants; so, too, some liabilities. Smart investors know that.

Gaps in GAAP

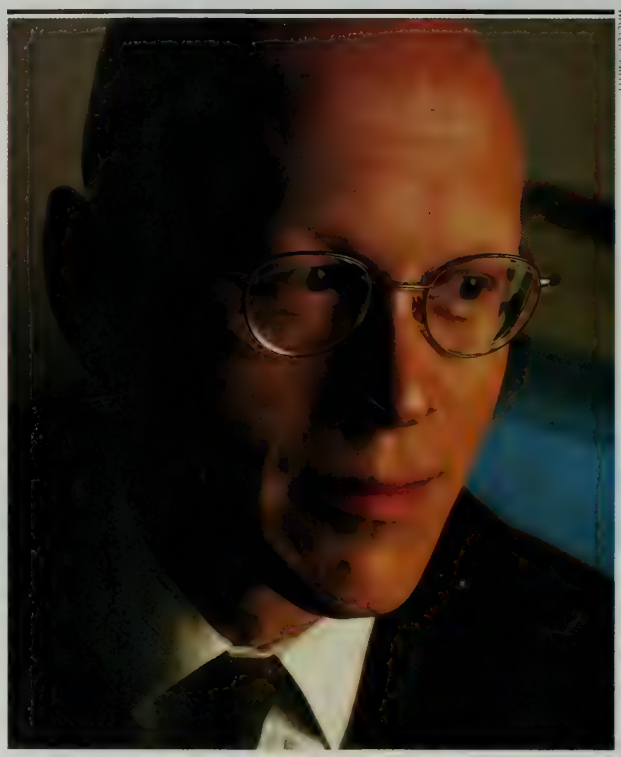
By Bernard Condon

BY BEN GRAHAM's standards, Pfizer, FORBES' Company of the Year *(Jan. 11)*, is no bargain. It recently traded at 60 times estimated 1998 earnings and 16 times its book value per share. But you can make the case that Pfizer's not so wildly overpriced with a little conservative tweaking of the numbers. What if you ignore accounting rules requiring Pfizer's R&D spending to be expensed right away and treat it more like an investment in an asset generating wealth over the next five years? Pfizer suddenly appears to be trading hands at 48 times earnings, some 20% cheaper, and at 12 times book.

The numbers we are accustomed to using for making investment judgments are abstractions from reality. Critics of conventional accounting believe that they also distort reality. Really smart investors must go back to the original data and reinterpret it. "Right now," says former SEC commissioner Steven Wallman, "we take disaggregated data and have accountants aggregate it, only to have investors disaggregate it again."

The old system served well enough when most assets were physical: plants and equipment, ore or oil in the ground, real estate, trees, inventory you could count and money that people owed you. But today the best assets are intangible: Microsoft's know-how and market position, Dell's exclusive marketing setup, well-trained employees, a company's reputation for quality or hipness.

For example, the Gap's value has little to do with the historical cost of its store fixtures and everything to do with something accounting ignores: its brand image, based on a feel for the market and carefully nurtured with advertising. Dell's computers aren't much different from others, but its well-honed direct-selling system, though it doesn't even show on the balance sheet, is an asset competitors lack. AOL's only substantial asset is its huge subscriber base, but



WALTER SMITH

Steven Wallman, SEC commissioner-turned-reformer

Are the days of the single, SEC-sanctioned P&L numbered?

so far as accounting is concerned t money invested to build that ba was an expense, not an investmer How do you value such assets? T stock market tries to. That's wh some stocks sell at 8 times earnin and others sell at 40 times. T market recognizes—if the accounti rules don't—that the convention measures are inadequate.

Generally Accepted Accountir Principles—GAAP—sa that money spent trainir staff is an expense—mon disbursed, never to l recaptured. But any bus ness owner knows that well-trained staff is wor more than a state-of-th art machine.

Wallman, now a senic fellow at the Brooking Institution, would like t see companies supplemer conventional reportin with additional materia prepared perhaps b someone other tha accountants. For exampl he thinks it would b useful for investors t have information abou staff turnover rates, c have brand names value by Interbrand or Amer can Appraisal. These ou side appraisals woul themselves be verifie The Financial Accountin Standards Board could s standards for gatherin information. Auditor would check how compa nies came up with th data; the SEC would prosecute i cases of fraud. Wall Street firm could manipulate the data to mak up their own versions of incom statements and balance sheets. "Fo the first time in the history o accounting," Wallman says, "instea of having other people decide th rules, we could have competition."

"The [existing] accounting systen is failing us," says Amy Hutton, a accounting professor at Harvar Business School. "The value is in th people, and that asset is not easil counted. It's created a gap." So ha heavy spending on research an

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development: Witness Pfizer, which has shot to the head of its industry not because of size but on the strength of its R&D and marketing programs. Pfizer's annual spending on R&D has quintupled to $2.3 billion over the last decade, more than twice the growth in spending on its property, plant and equipment. But this form of investment isn't captured on the balance sheet. Neither is the value built into brand names by successful advertising and promotion.

Thus we get ridiculous numbers such as Coca-Cola's audited figures. They show that the company regularly earns more than 50% on its shareholders' equity—seemingly impossible to sustain. That's because neither its vaunted distribution system nor its brand name has any value on the books. Based on accounting rules, Coke's assets are around $18 billion. The stock market, of course, disagrees. It values Coke's 2.5 billion shares at $67 each, pricing the company at nine times as much.

Who is right? Without making any judgment as to whether or not Coke stock is cheap, it's still safe to say that the market is more nearly correct.

What would some of the high-flying companies look like if we treated their R&D as assets? Start with Lucent Technologies. If we capitalize R&D and then write it off over three years, similar to what we did with Pfizer, Lucent's earnings would rise by 27%. Its trailing price/earnings ratio would drop from 93 to 73. Motorola? Earnings would jump 55%, and the P/E would fall from 73 to 47.

As assets can be invisible to accountants, so can liabilities. When it went into its downsizing program in the late 1980s, IBM showed a book value of $34 a share. When it finished buying out unneeded employees and closing plants it no longer needed, book value was down to

High-tech bargains?

Company/business	Recent price	Latest 12-mo P/E	Price/ growth flow
Atmel/semiconductors	$15.31	22.5	7.4
Credence Systems/chip-test equipment	18.50	29.8	7.9
Informix/database software	9.88	32.4	6.1
Integrated Device Tech/semiconductors	6.13	NA	7.7
Silicon Valley Group/wafer-processing equipment	12.75	NA	6.3

NA: Not applicable. *Source: California Technology Stock Letter.*

Looked at by conventional measures, chipmaker Atmel is pretty expensive at 22.5 times earnings. But isn't the money it's pouring into R&D building up an asset you could call know-how? Michael Murphy, author of the *California Technology Stock Letter*, says investors should look not just at earnings but at "growth flow"—which he defines as earnings plus R&D.

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bout $19 a share.

In the real world, rather than that accounting abstraction, IBM had an "invisible liability" of something like 20 billion, and its stock suffered accordingly. GM, too, had its book value almost wiped out—and its return on equity jumped—when it had to recognize more retiree health benefits as a liability.

The stock market recognized, if accountants did not, that the fall of communism had opened new worlds to American brands and greatly enhanced their value. This went unrecognized on the books at Coca-Cola and Gillette and in Hollywood, but it opened vast new markets to them and many other quality U.S. brands.

"Ten years ago, if you were the chief executive officer of Coke, you were basically [running] a Western company—North America, South America and Western Europe," says Michael Mauboussin, a food industry analyst at Credit Suisse First Boston. "Now you have business prospects in India and the former Soviet Union

"The accounting system is failing us. The value is in the people, and that asset isn't easily counted. It's created a gap."

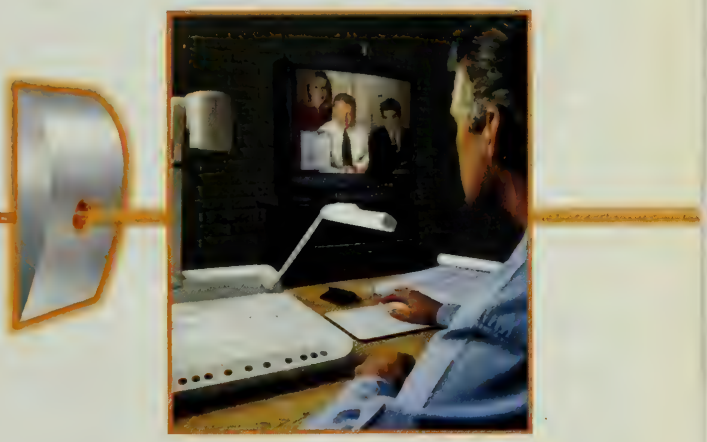
that simply didn't exist ten years before. You're seeing 4 billion consumers versus 1 billion consumers."

Conventional wisdom is that capitalizing R&D spending or advertising outlays is aggressive because there is no way of knowing if the spending will ever pay off. But you can say the same thing for most capital spending on plant and equipment. In the 1970s the U.S. steel industry poured tens of billions into new equipment that became obsolete almost as soon as it was installed. Yet the steel companies were showing healthy profits and the new plants were carried as assets, though they turned out to be worthless.

The accountants are aware of the problem. FASB is holding meetings over the next year and a half to come up with a list of nonfinancial data that companies would be encouraged—but not required—to disclose. Paul Healy, an accounting professor at Harvard Business School, points to the oil industry as a model for measuring R&D. Oil companies capitalize all spending on drilling. If the hole is dry, only then is the expense written off. If it produces oil, the capitalized costs are written off over the life of the well. "If a company is unlucky in R&D this year, its stock price can drop," he says. "But maybe you should have gotten clues about this five years ago. How much was spent in the past that did not work out?"

Baruch Lev, an accounting professor at New York University, thinks Healy's idea doesn't go far enough. He proposes that once an R&D project reaches the point at which you can identify a product, say a drug that just passed Phase I tests, the product should be recognized as an asset and all spending capitalized in the years they were

eeting. Which one would you rather be?



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expensed. If the drug does not make it to market, you would go back and reduce earnings for the years the money was spent. Historians, he points out, revise the past constantly; why shouldn't businesspeople?

Nowhere are accounting rules more confusing than in mergers and acquisitions. Develop a new brand and advertise it heavily, and you are expected to write off the expenses as they occur rather than over the life of the new product. But buy a product by buying another company and the cost becomes an asset. "If you develop something, it's immediately expensed," explains Lev. "If you buy the same thing, it's not expensed and you have an asset. This is nonsense." True, acquired goodwill must be written off over 40 years, but that's a lot different from writing it off immediately. Yet even this can be avoided by arranging a pooling-of-interests deal wherein nobody gets acquired; the two companies simply combine their balance sheets. Pooling boosts an acquirer's earnings and distorts a key ratio—return on equity. In 1987 there were two poolings. Ten years later 500 were announced.

Note that whether one company buys another or they simply combine balance sheets, nothing changes in the real world. But a lot changes in the world inhabited by accountants. Yes, capitalizing franchises and R&D and employee training could be misleading and open the way for book-cooking. But so do current accounting rules.

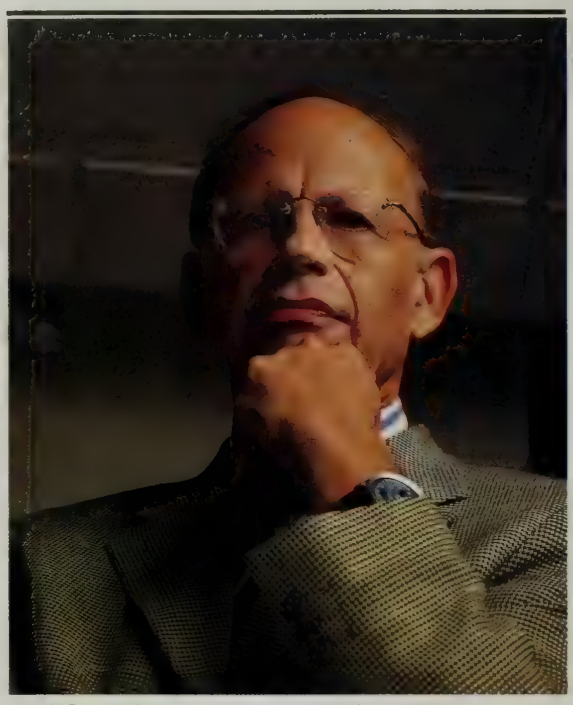
Hold it. Could all this talk be just so much bull-market revisionism, a rationalizing that seeks new arguments to justify ever-higher stock prices? Jack Ciesielski, author of the widely respected newsletter *Analyst's Accounting Observer*, calls it bull-market math. "Now t P/Es are straining at seams, we've got to fin way to justify it by saying messenger—accounting- wrong. I don't buy it."

But critics of account like Steve Wallman aren't scrapping the old rules. Tl want to try out other m sures, in part to g investors additional inform tion, in part to stimul their thinking. A bit of h tory: In the very early 198 the Walt Disney Co. was r a particularly cheap stock the standard measures, bu was nonetheless terrifica undervalued. Because t company was poorly ma aged, investors were giving much value to its ri and irreplaceable franchis It only took smarter ma agement to milk that fra chise, and for the value to recognized by the market

Had Disney be required to put a price on franchise, investors might have re ognized sooner than they did tl huge value locked up therein. Coc Cola was a similar case. By the sta dard rules, neither Coke nor Disn was cheap. Valued by their franchise both were steals.

Does this mean that "value investing is dead? That you can n longer make money buying stocl whose prices are cheap relative t earnings, book value or sales? No necessarily. It's no accident tha Warren Buffett, disciple of Be Graham and a student of value, wa among the first to recognize tha franchises are assets as much as c even more than things accountant can count. It's simply a question c extending the concept of value.

Of course such measurements ca never be as accurate as a count o widgets piled up in a warehouse They get into all kinds of fuzz things, and accountants hate fuzzi ness. Yet the profession would b wise to remember what John May nard Keynes once said: "I'd rathe be vaguely right than precisel wrong."



WALTER SMITH

NYU's Baruch Lev, a radical among the disgruntled

Change profits five years ago, based on R&D results today.

Consumer bargains?

Company	Recent price	Latest 12-mo P/E	Ad-adjusted P/E*
Colgate-Palmolive	$90.88	33	18
Gillette	47.81	50	19
PepsiCo	40.88	39	18
Procter & Gamble	91.31	32	16

*Advertising and marketing spending are the latest annual published figures, tax adjusted.

Source: Valuation Research Corp.

Conventional accounting says that advertising outlays are an expense. But don't they build up that intangible asset you could call brand value? Alfred M. King of Princeton-based Valuation Research Corp. suggests adding back to earnings a company's advertising expenses (net of the tax benefit it gets by deducting ad outlays). That gives you a rough measure of a company's asset-building power.

Virginia Postrel

When you're in the danger business

A child is about as likely to be seized by evil spirits in the doll he's chewing as he is to absorb enough phthalate to create health problems.

EVERY YEAR AROUND CHRISTMAS the Consumer Products Safety Commission gets a burst of publicity by spotlighting unsafe toys. The most recent list included toy chests that kids can get trapped in, spinning dolls with wings that can fly off and (to quote mothers everywhere) put somebody's eye out and toy vehicles whose wheel hubs can become "choking hazards."

When it makes such evaluations, the agency puts safety first. It doesn't consider other things that matter to people, such as fun, cost or beauty. It imagines the worst. If some kid somewhere might dangerously misuse a toy or if a toy has been associated with any accidents, however infrequent, the CPSC deems the toy a hazard.

This monomania can be infuriating, but it makes the agency authoritative. So the CPSC should be the perfect agency to declare a toy safe—to conduct tests and refute ideologically based allegations that a toy poses a danger.

The commission's credibility was tested just this way recently, and it failed miserably. Rather than trust its own scientific research, the CPSC pandered to fears, furthering an antitechnology smear campaign.

In December the agency released a study on whether a plastic used in squeezable children's toys could cause kidney and liver damage, including cancer. Greenpeace is waging an international crusade against the substance—diisononyl phthalate—as part of its overall war on chlorinated compounds and the chemical industry in general.

There's no better way to make a technology or an industry look bad than to say it is secretly killing our children. High doses of the chemical have indeed been shown to cause tumors and other organ damage in rats and mice. Since kids often chew these toys, the charge is a serious one and worth investigating.

Which is exactly what the CPSC did. It not only reviewed existing research but conducted its own, using adult volunteers to see just how much of the chemical someone can swallow by chewing on toys. It concluded that "few, if any, children are at risk from liver or other organ toxicity from the release of [the compound] from these products. This is because the amount they might ingest does not reach a level that would be harmful." In fact, it doesn't even come close.

A child is about as likely to be seized by evil spirits in the Teletubby doll he's chewing as he is to absorb enough diisononyl phthalate to create health problems. Kids simply can't get enough of the chemical into their systems to cause any damage.

That should have ended the matter. But you can't prove a negative—that a toy isn't dangerous—and the CPSC appears culturally incapable of saying no to Greenpeace. It can never say a product is safe. It is in the danger business.

So even as it released its study vindicating the toys, the agency asked manufacturers and retailers to take them off the market. Several large companies agreed "voluntarily." The commission also told parents of infants to throw the toys away. It asked for further study.

The message was clear: Scientists say the toys are safe, but as policy setters we disagree. The agency managed to avoid any legal accountability. Its official findings, perfectly scientific, didn't stop it from joining Greenpeace's defamation campaign.

As a result, no company can afford to keep the toys on the market. Once a government agency has suggested that a product is dangerous, the litigation risk is simply too high to keep selling it. (Just ask breast implant makers.)

Every child who has ever chewed a phthalate-containing rattle—a category that includes most kids—and comes down with kidney or liver disease now has an innuendo-based case to bring against the rattlemaker. There are few more sympathetic plaintiffs than sick children.

This is more than a toy story. It shows that technologies can be destroyed simply by innuendo, as long as "disinterested" federal agencies cooperate. The technocracy that promised neutrality and progress delivers reactionary bias instead. ■

Virginia Postrel is the editor of *Reason* magazine and a columnist for *Forbes ASAP*. Her book, *The Future and its Enemies*, was published in December by the Free Press. E-mail: vpostrel@reason.com

Watch out. Five million ordinary investors are empowered with new trading tools, and they all seem to think these tools are going to make them rich.

Amateur hour o

By Matthew Schifrin with Om Malik

NANCY SY IS A 42-year-old credit specialist for Syncor International, a Woodland Hills, Calif. pharmaceutical distributor. Sy used to invest in the blue chips like Merck, Philip Morris and McDonald's. But starting in early 1997 she began buying Web stocks through an account at E-Trade, using tips from the Motley Fool Web site. In two years she has increased her portfolio from $39,000 to $100,000-plus by investing in stocks like Amazon.com, America Online and eBay.

"This morning I bought 200 shares of AAGP (Active Apparel Group) at 14 and sold it at 19⅜. Last month I bought Books-a-Million at 16 and sold at 26," gloats Sy, who spends seven hours a day Web surfing. "I used to idolize Warren Buffett, but now I follow the message boards." Sy says she will use her profits from eBay to pay off her Honda Accord.

Over the next five years, she figures, she can grow her nest egg by at least 25% per year and become a millionaire.

Nicholas Birbas, a 25-year-old former waiter from Queens, N.Y., has a Pro-Star 300-megahertz Pentium laptop patched into E-Trade

Wall Street

America Online. With those ols, trading in and out of stocks e Navarre and Netscape, he ned $1,100 into $100,000 in two nths. "Before, I was investing for long term and I found out that it was not smart. Now my goal is a 1,000% return by 2000," he says.

The stock market has seen plenty of speculative bubbles before, but this one is different. The burst in stock prices over the past four years has coincided with an explosion in investment technology. People look from the Pentiums in their laps to the fat balances in their brokerage statements and naturally make a connection. They think ey're on to something.

Each day a 5-million-strong mob on-line investors is proving that hen it comes to stock picking, ight makes right. In their world, erything you have learned out rational pricing—earnings or ook values or even revenues—is eaningless. Don't worry about the ng haul. Trade for the moment. Make a killing. Hey, everyone else in the chat group seems to be doing so.

This feverish interplay of technology and stock prices is most visible in tech stocks, but it is not confined to tech stocks and there is little reason the mania cannot spread to the whole stock market. If you bought stocks utterly at random last year—Amazon or AMR or American Home Products—and you bought enough of them for the law of averages to work, you made 26%. And if you were new to investing you might think that you could repeat the exercise. How long does it take to double your money at that rate? Only 3 years. Keep it up for 15 years and you have turned $50,000 into $1.6 million. Retire young.

Hmm. Will there be enough corporate profits over the next 15 years to hand $1.6 million to everyone with an on-line account? You can't ask questions like that because this new world of investing is one where no one looks at profits. Morgan Stanley's index of 73 Web companies collectively lost $1.5 billion last year, yet has a combined market value of $115 billion. Indeed, this is a world where people don't necessarily look at the line of business a company is in. When *Barron's* published a story suggesting that Federal Express was the cheapest Internet stock (because it delivers what people buy on-line), the stock popped 18% the next trading day.

Each day a 5-million-strong mob is proving that might makes right. In their world all you learned about rational pricing is meaningless.

The new era has captivated even some of the pros. "I am not so sure this is an ignorant mob," says Robert Lessin, former vice chairman of Salomon Smith Barney and now chief executive of tiny on-line investment bank Wit Capital. "These Internet users may be the most knowledgeable people around to value these franchises."

Maybe. The on-line masses already lord over the pricing of high-flying Internet issues like Amazon.com, Excite, Yahoo and K-Tel, where they control as much as 50% of the trading volume on any given day. But they're also gaining influence over larger companies with real businesses and profits. Consider, for example, that a year ago the on-line crowd amounted to less than 13% of Dell's average trading volume. Today the number has grown to at least 24%.

On-line traders, who gravitate to the volatile and technology-flavored Nasdaq, have pushed Nasdaq's average daily volume to 800 million shares, 19% higher than the New York Stock Exchange's 674 million. But the wired crowd have not ignored the Big Board.

Last year the share of Big Board trading accounted for by block trades of 10,000 shares or more fell to under 50%, from 57% in 1995. In certain issues like America Online, most of the trades are nonblock. A large fraction of the trades are for 200 shares and fewer.

Like any mob, the on-line traders get their power from sheer numbers. Julio Gomez of Gomez Advisors in Concord, Mass. estimates that there are currently 7 million on-line brokerage accounts, next to perhaps 40 million accounts at full-service brokers like Merrill Lynch. But the on-line account total will grow to 17 million by 2001, he says.

"We are in a point in time right now where the demand is so intense for a limited number of Internet stocks, a bubble has formed that will continue to expand," says James Marks, E-commerce analyst at Deutsche Bank Securities Inc.

For one thing, on-line investing is cheap and easy. Fast, powerful personal computers cost little more than a television set these days. There are now some 100 on-line brokers offering executions at as low as $5 per transaction.

Three years ago getting real-time quotes, charts and news would require either a Quotron or a

Bloomberg terminal at $800 to $1,000 per month. Today most on-line brokers offer it all free over the Web.

"There is a certain adrenaline rush I get every time I hit that enter key and my buy order goes through," says Nicholas Birbas, who made $21,000 in one day recently when Multiple Zones ran from $10 to $59 after the company announced it would set up an auction Web site. Birbas makes from two to ten trades per day, which qualifies him for E-Trade's premium Web-based service known as the "Power" E-Trade Platinum account.

Sit in front of your black, green and red "Power" screen and at your fingertips you have stock charts, news feeds, volume reports and information on markets as far off as Malaysia. Everything is instantaneous and continuously updated. The service even gives Birbas and thousands of others free access to Nasdaq Level II quotes, which reveal all of the various marketmaker bids and offers in a stock.

Don't worry about the long haul. Get that real-time price feed. We're all getting rich.

"I cannot wait to get up in the morning and trade. This is the most exciting thing in the world for me right now," exclaims 51-year-old personal injury attorney Barry Plotkin. Plotkin spends several hours a day trading from his laptop, while sitting on his front porch looking out onto San Diego Bay. Last April he took out a $300,000 home equity loan and began on-line trading through Waterhouse Securities. He first invested in stocks like Home Depot and Walgreen, but became bored. Then he turned to stocks like Amazon and Yahoo.

"My philosophy is to buy high and sell higher and not be afraid to take risks. I use no research tools or software, I just surf the message boards and look for volume," Plotkin says. He predicts that with help from his computer-savvy 26-year-old son, Robert, he can build his nest egg to $15 million by the time he reaches 60.

You cannot accuse investors like Barry Plotkin and Nancy Sy of failing to understand risk. They see volatility every day, and when they have a bad trade they can lose a tidy sum in short order. No, the mass delusion at work here revolves around something else: expected return. Investors these days don't just dream of getting rich, they *expect* to get rich.

According to a recent survey by the Jersey City, N.J.-based Institute of Psychology & Markets, the average investor expects an annual 18.6% rate of return on stock and stock fund portfolios. With dividend yields where they are now, that kind of return would put the Dow at 45,000 in a decade and 210,000 in two decades. A little historical context: Just before the crash of 1929, investors expected an annual return of 10%. And they got something close to that over the next 69 years. But 18.6%? That would turn $100,000 today into $13 billion in 2068. Is it that easy to get rich?

"I cannot wait to get up in the morning and trade. This is the most exciting thing in my life," says 51-year-old attorney Plotkin.

Keep your seat belt fastened, the mob is growing fast. On-line firms are signing up some 15,000 new accounts each day. That should quickly push the percentage of U.S. households owning stocks to as much as 50% within five years, up from 33% now and only 20% at the end of 1990. New on-line investors tend to trade twice as much as before they went on-line. And as with the bubble in Japanese stocks during the 1980s, there is an absence of short-sellers courageous enough to face the mob.

Consider what happened to one of the most successful short-sellers of the last 40 years, Meyer Berman of Boca Raton, Fla. Berman's world has been turned upside down. He shorted Zitel, a software company that has a stake in a company that makes software that fixes Y2K problems. Berman checked the company out and figured it was worth a dime a share because industry experts were convinced that its automated system didn't work. However, without any significant news, the e-traders hel[d] move its 6-million-share float fr[om] $10 to $145 in a matter of mon[ths] squeezing shorts like Berman.

The on-line mob also has gi[ven] legitimacy to a new crop of W[all] opportunists. Take Greg Mann[ing] Auctions, a sleepy New Jersey [co.] lectibles and stamp auction house. [For] years the stock languished at less th[an] $2. So at the end of October M[an]ning announced that he would bu[y a] small Web company and hire[d a] public relations firm to tout it. M[an]ning's stock rose tenfold to $20 [a] share within a few days. Now [the] shares trade frenetically.

Mob justice isn't always pretty, a[nd] it doesn't always make stocks go [up]. Take the case of Labor Ready, a $5[0] million (revenues) company that c[on]patches temporary laborers and h[as] absolutely nothing to do with t[he] Internet.

Until last summer it was busin[ess] as usual for the fast-growing Tacom[a] Wash.-based firm. The company w[as] meeting analyst projections for ear[n]ings and its stock was hoveri[ng] around $30. Then in mid-Augus[t] number of on-line short-sellers beg[an] posting messages on Yahoo's messa[ge] board. One, on Aug. 18 at 11:[59] p.m., announced, falsely, that t[he] company would soon be the subje[ct] of a "labor board" investigation f[or] improper payment of taxes and hirin[g] illegal aliens. The next morning Lab[or] Ready's stock opened down and ke[pt] dropping on heavy volume. By noo[n] there were more messages on Yaho[o] this time about accounting irregula[r]ities and massive insider selling.

The on-line mob moved in. Ma[r]ketmakers from firms like Knigh[t] Securities and Mayer & Schweitze[r] the main trading firms for big on-lin[e] brokers like Charles Schwab, E-trad[e] and Ameritrade, began buying an[d] selling its stock. The company hel[d] an emergency conference call wit[h] auditor Arthur Andersen to deny th[e] rumors, but the stock continue[d] down. When the carnage was finall[y] over, Labor Ready's stock had falle[n] to $12. It has since recovered to $2[0], meaning that half its market valu[e] was wiped out.

For the Wall Street firms tha[t] advise companies like Labor Ready a[nd]

mateur hot stocks

ompany/TICKER	Stock price 12/31/98	Stock price 1998 chg %	On-line trading volume[1] %	November volume/ float %	Price/ sales ratio	Market value ($mil)
ell Computer/DELL	$73.19	249%	24%	13%	6	$93,024
mazon.com/AMZN	107.08	966	33	184	40	16,938
gghead.com/EGGS	20.81	220	45	465	2	508
etscape Communications/NSCP	60.75	149	36	167	14	5,953
ahoo!/YHOO	236.94	584	38	188	156	23,384
-Tel International/KTEL	10.50	217	53	3,768	1	88
iena/CIEN	14.63	–76	35	74	3	1,510
xcite/XCIT	42.06	180	39	550	18	2,170
ooks-A-Million/BAMM	13.00	124	55	460	1	225
ntel/INTC	118.56	69	13	3	8	197,645
isco Systems/CSCO	92.81	150	13	3	16	145,995
icrosoft/MSFT	138.69	115	12	[illegible]	23	345,888
nsale/ONSL	40.06	123	46	580	4	768
ycos/LCOS	55.56	169	31	147	33	2,386
nformatics/INFO	4.50	125	53	612	3	43
eron/GERN	10.88	32	41	250	18	146
avarre/NAVR	10.06	374	41	449	1	135
yberian Outpost/COOL	27.50	53[2]	51	676	14	607
eBay/EBAY	241.25	1,240[2]	43	731	319	9,714
airGain Technologies/PAIR	7.69	–60	23	47	2	544
arthWeb/EWBX	38.88	178[2]	49	1,122	135	307
pplied Materials/AMAT	42.69	42	13	6	3	15,690
dnow/CDNW	18.00	13[2]	40	551	7	318
N2K/NTKI	13.06	–11	39	198	6	186
pen Market/OMKT	11.69	21	36	174	6	409

Trades from Mayer & Schweitzer, Knight Securities and Island as a percentage of total monthly volume. [2]Based on offer price.

Sources: Interactive Data & Market Guide via FactSet Research Systems, Inc.; Nasdaq.

bove are the top 25 o-t-c stocks, in order of volume, in which marketmakers for on-line bro- rs recently traded. Note their growing influence in big companies like Dell and Intel.

ell as compete with the on-line bro- ers for clients, the growing on-line nob presents a prickly dilemma. low can they underwrite these hot ew issues, which fuel the on-line enzy, and still support the old full- rvice way of doing business?

Firmly established among retail nvestors, the on-line firms are using neir technology to hit Wall Street's rofit centers. Electronic daytraders ave already attacked Nasdaq's mar- etmaker spreads and driven much of he profitability out of the business (FORBES, *Apr. 6, 1998*). Compaq and he founder of E-Trade recently start- d a new electronic trading company alled the International Securities Exchange, which plans to fully auto- nate options trading, eliminating the need for floor brokers.

This, not to mention the growth of private trading networks called ECNs (electronic communications networks). ECNs, like Datek's Island, could soon damage the remaining profitability of the institutional equity business. Mutual funds and other institutions currently pay from 3 to 9 cents per share for orders placed through the institutional equity departments of brokerage houses. ECNs, destined to become the equivalent of on-line brokers for big institutions, typically charge a fraction of a penny per share. Goldman, Sachs; Merrill Lynch; Bear, Stearns; and others have recently invested in their own ECNs.

The caution flag is out. Bernard Madoff is head of the marketmaking firm Madoff & Co. and also chairman of the trading committee for the Securities Industry Association. He's urging on-line brokers to tell their clients that highly volatile stocks like Amazon and Yahoo are likely to face a severe lack of liquidity during a downturn or a prick in the Internet stock bubble. "The problem is, there is no buffer between the customer and his own tools of self-destruction," says Madoff.

Merrill Lynch's vice chairman, John (Launny) Steffens, has gone as far as to order his brokers to urge clients to cancel unsolicited market orders to buy brand-new Internet stocks. So far Merrill has been able to get its clients to cancel hundreds of thousands of share orders in the hot new issues of The Globe.com, Ticketmaster/CitySearch, Ubid and Xoom.com. Merrill has yet to offer any form of on-line trading service.

In trying to contain the on-line mania just a little, Merrill is probably doing its customers a favor. But, given the seemingly easy money being made by the wired crowd, it is fighting an uphill battle. Even its older customers, who might be expected to remember the crashes of 1962 or 1973-74 or 1987, will have trouble resisting the lure.

Dorine Essey, 70, and her husband Herb, 79, are retirees in Miami Lakes, Fla. They used to be loyal customers of firms like Merrill. Now the pair spend ten hours a day on-line, much of it browsing the Silicon Investor Web site. He uses a Toshiba laptop to trade on E-Trade. She has a 400-megahertz Hewlett-Packard with a 12-gigabyte hard drive, and trades via DLJ Direct. In one week in December they made a dozen trades in stocks like SkyMall, Egghead.com and Genesis Direct.

"My philosophy is, don't marry your stocks, and, above all, take your profits and run," says Dorine. Just how high a multiple of earnings is she willing to pay for a company? "I pay no attention to P/Es," she says. "They don't matter." Not just now, anyway. ■

It's not as fun

There are advanced 4x4s. And there are advanced 4x4s.

To what do we attribute this profound split in the gene pool?

The 1999 Range Rover 4.6 HSE–the technological wunderkind from, you guessed it, Britain.

[illegible]n do anything it puts its [illegible]ips to.

[illegible]sses, calculates, recalculates, adjusts, and generally masterminds every nanosecond of every ride in every kind of condition on any and all terrain.

Technologically speaking, it makes your PC look like a chisel.

The Range Rover is, in short, enormously gifted.

With four-wheel electronic traction control, for instance. And four-channel all-terrain ABS, which can make [illegible] corrections per second. 15,000 [illegible] minute. 900,000 per hour.

It also has electronic air suspe[illegible] with five ride heights, as well as [illegible] matic self-leveling.

Suffice it to say that the Range [illegible] isn't among the pavement-challe[illegible]

Or the unpavement-challenge[illegible] that matter.

you think.

is it unprepared for any other
nging scenario.
n its front and side airbags are
ed to distinguish between
road jolt and an on-road "Uh-oh,
o fully deploy!" accident.
what makes the Range Rover
nore impressive, of course,
its engineering is seamlessly
oven with the highest level of luxury and refinement.

So why not call 1-800-FINE 4WD for the nearest retailer? Or visit us at www.Best4x4.LandRover.com.

Needless to say, the Range Rover is a considerable distance from the bottom of the price chain. But that's hardly surprising for the one 4x4 that isn't dragging its knuckles on the ground.

Will it ever become advanced enough to pursue other interests?

Nyet.

LAND ROVER

RANGE ROVER

Always use your seatbelts. SRS/airbags alone do not provide sufficient protection.

Danger: stealth attack

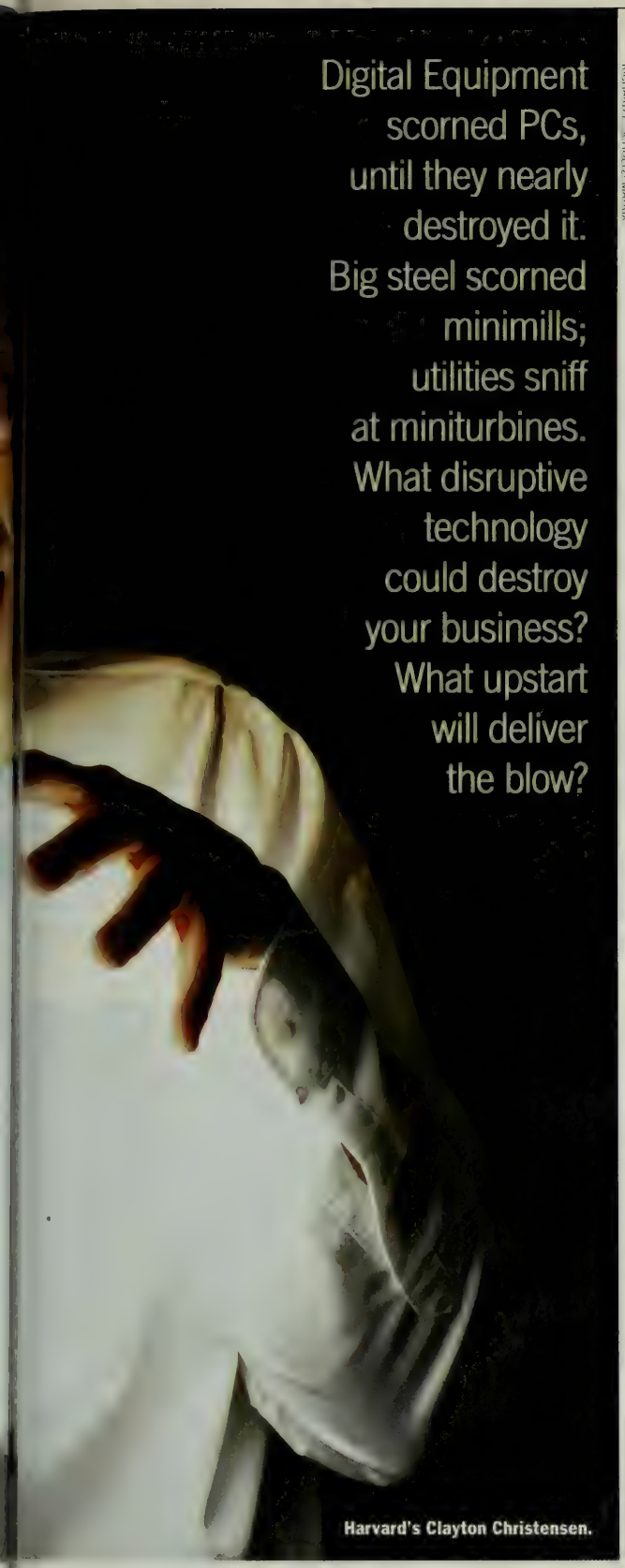
By Toni Mack and Mary Summers

Harvard Business School Professor Clayton Christensen stood before a group of Intel senior managers in September 1997 to tell them how upstarts capture business from established firms. Low-cost steel minimills, he said, stole 40% of the business from stalwarts like Bethlehem Steel and U.S. Steel by starting in the junkiest market segment, reinforcing bar, and working their way up from rebar to sophisticated sheet steel. Christensen showed a slide depicting the trend.

Intel Chairman Andrew Grove listened intently. He'd already begun pointing Intel toward a PC market segment it had previously scorned. "I was looking at his slide," recalls Grove, "and I had this creeping feeling that he was really talking about the introduction of low-cost computers. It is our rebar. It made me resolve that we'd better be very, very serious about this effort or else we will be like the integrated steel producers."

Christensen's ideas framed the after-dinner discussion among Grove and his executives. "Rebar" became Intel's inside slogan for attacking the low-cost PC market.

Grove then used the tale to ignite more than 1,000 Intel salespeople at a January 1998 meeting. Grove told them: "This is what happened to the steel people, and this is what might happen to us unless we are very aggressive in pursuing the low end." Intel's low-end Celeron chip has since taken 35% of the low-cost PC market.



RICHARD T. SCHULTZ/ MATRIX

Graveyards are full of firms that ignored a competitive threat like this one. Makers of sailing ships scoffed at steamships. Western Union, once the U.S.' largest company, doubted that AT&T's phone calls could replace its telegrams and even spurned an early chance to buy Alexander Graham Bell's patents. Mighty Sears, Roebuck & Co. laughed at discounters. And let's not forget that utterance from a Baldwin Locomotive Co. executive, just before diesel-electrics swept over the business: "They'll never replace the steam locomotive."

Easy to say that managers grew arrogant and lazy. Easy for managers today to vow: "I won't make that mistake!" Christensen brilliantly shows how they make the mistake anyway, in *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail* (Harvard Business School Press; $27.50).

This book ought to chill any executive who feels bulletproof—and inspire entrepreneurs aiming their guns. Using industries as chalk-cheese different as computers, motorcycles, earth excavators and accounting software, Christensen shows how often a fatal threat starts as a low-quality, low-margin product that your customers can't use and don't want. Naturally, you shrug—until the new product grows in capability to meet your customers' needs.

The Innovator's Dilemma ought to chill any executive who feels bulletproof—and inspire entrepreneurs aiming their guns.

Christensen terms a new product that sneaks into an established market a disruptive technology. Grove dubs it "the Christensen effect." We'll call it a stealth attack.

The Internet is the Godzilla of stealth attacks. Once a cumbersome tool wielded only by academics and nerds, today's Web challenges not just retailers but everyone from venerable Merrill Lynch and Aetna Inc. to high-tech Sony Corp. and Microsoft Corp.

Stealth attacks are all around us. Little golf carts are invading the electric-auto market. On-line gossip journals are stealing readers away from august newspapers. Miniature generators are taking electric power business away from giant utilities. Doctors face a stealth attack from nurses. Cost pressures and changes in medical technology have put some of their work in nurses' hands.

Nintendo threatens powerful Eastman Kodak. For a mere toymaker to encroach on classy Kodak's turf seems unthinkable. But as *The Innovator's Dilemma* shows, a disruptive technology alters the marketplace in such a way that low-quality products can migrate overnight into the top drawer.

Kodak's digital cameras employ charge coupled devices and fetch $500 to $30,000. Nintendo's $50 Game Boy cameras use low-tech sensors with so-called CMOS (complementary metal oxide semiconductor) technology borrowed from mass-market computers. Game Boy photos are fuzzy. They make only postage-stamp-size prints. But quality is quickly improving—and Nintendo has already sold more than 1 million cameras.

Michael Bloomberg now thinks of Christensen when he looks over his shoulder at the Internet and other potential threats.

Terrence Faulkner, who retired last month as a Kodak vice president, read *The Innovator's Dilemma* shortly after it appeared in June 1997 and used it to begin formulating Kodak's counterstrike. He deployed Kodak kiosks in FAO Schwarz toy stores; they make Game Boy-type sticker photos. Faulkner also hints that Kodak will soon introduce a Game Boy-like camera, with quality more acceptable to its mass market, employing CMOS sensors from a Kodak-Intel joint venture.

In October Christensen spent a day and a half explaining to Kodak Chairman George Fisher, Faulkner and other senior executives why stealth attacks are so hard to detect and counter. Successful firms listen well to their customers, who don't want the stealthy product—at first. Middle managers may sense a looming market, but won't bet their careers—and naturally stick to what has worked, explained Christensen.

"His ideas have made us think a little differently," say Fisher. "Even good people get locked into processes tha may be totally inappropriate to deal with a new tech nology attacking from underneath."

"What's valuable about Clayton's ideas is that the give you a framework," notes Andy Grove. "They allo a business to learn from the experience of others. Th specifics are different, but you can move the generalit over to your business and then go down into you specifics."

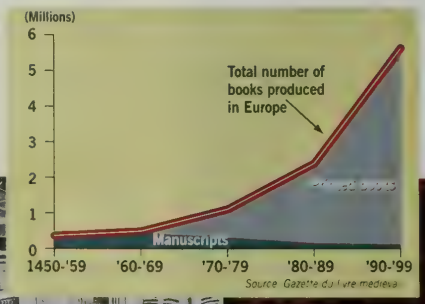
Bloomberg Financial Markets attacked from under neath and drove Telerate into a small corner of th market for on-line bond-trading data. Michae Bloomberg started by offering only a smattering of th pricing data the others offered to financial services firm but took advantage of new developments in portfoli theory to offer analytical data that the established ven dors did not offer.

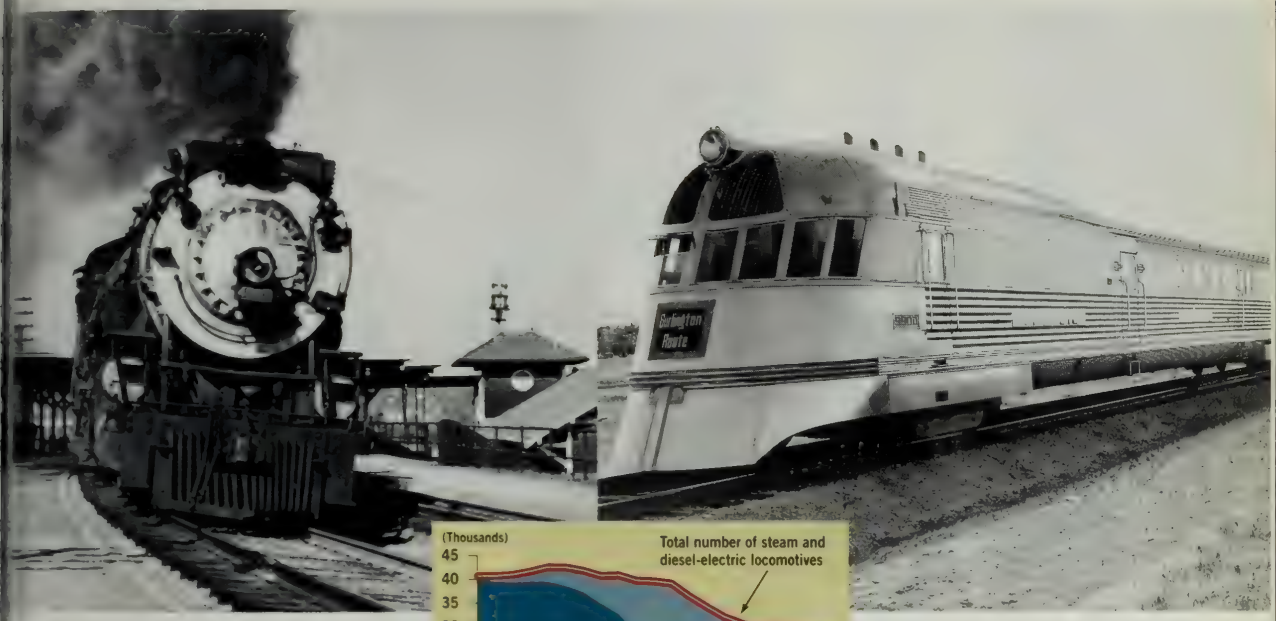
Bloomberg now thinks of Christensen when he look over his shoulder at the Internet and other potentia threats. "The easiest thing is to say, 'It's so horrendou to think of going out of business, I won't do anything I'll pray it goes away.' Christensen gets you to say 'Which risks do you have to run?'" Bloomberg has sent copies of *The Innovator's Dilemma* to 50 friends.

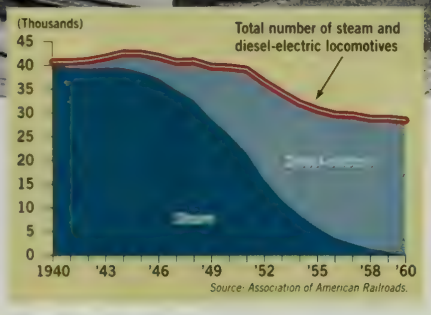
What to do if you're under fire? Christensen contrasts Digital Equipment Corp.'s and IBM's forays into PCs. DEC tried and failed four times, always from within its mainstream organization. It was a halfhearted effort at first, reflecting the early view of DEC founder Ken-

Monks for hire

Stealth attack, 15th-century style: The printing press replaced thousands of manuscript-copying monks and scribes.







Out of steam

"They'll never replace the steam locomotive," declared a Baldwin Locomotive executive. Diesel-electrics did.

eth Olson that the PC was just a toy. M put its PC unit in Florida, far from s New York base. There the undisacted IBMers could fit their technoloy and costs to the smaller-margin PC arket. They created a smash hit. IBM's are of the PC business later faded, ter it linked the PC unit more closely the rest of IBM.

Microsoft is brilliant at detecting new reats, such as the Internet, and reactng to them. Might it nevertheless succumb to a stealth attack? It might. "They've overshot the market in so many products," ys Christensen. "Microsoft Excel 2.0 [spreadsheet] sed 1.2 megabytes on your hard drive. The latest verion takes 36 megabytes just to load. How many of its nctions do users even know exist?"

The ascendant attacker: Sun Microsystems' Java softare. Many Java applications run slowly. But Java is pidly improving. Its applications—or even small pieces f applications—run not only on Microsoft-powered achines but also on Apple's Macs and smaller applinces like 3Com's PalmPilot. Users will be able to tap nly the features they want, via the Internet. Predicts hristensen: "This will get Microsoft long before the ustice Department does."

Internet telephony is a stealth attack on traditional elcos like AT&T and SBC Corp. and equipment suppliers ike Lucent Technologies and Nortel Networks. The stablished players connect a speaker's voice to the listener's ear in 50 milliseconds. Most people today won't olerate annoying lags of 300 milliseconds or more on nternet calls. But our ears can't tell the difference etween a 50-millisecond gap and a 150-millisecond ne. Christensen thinks new technology will shrink the Internet delay to a "good enough" 150 milliseconds as early as next year .

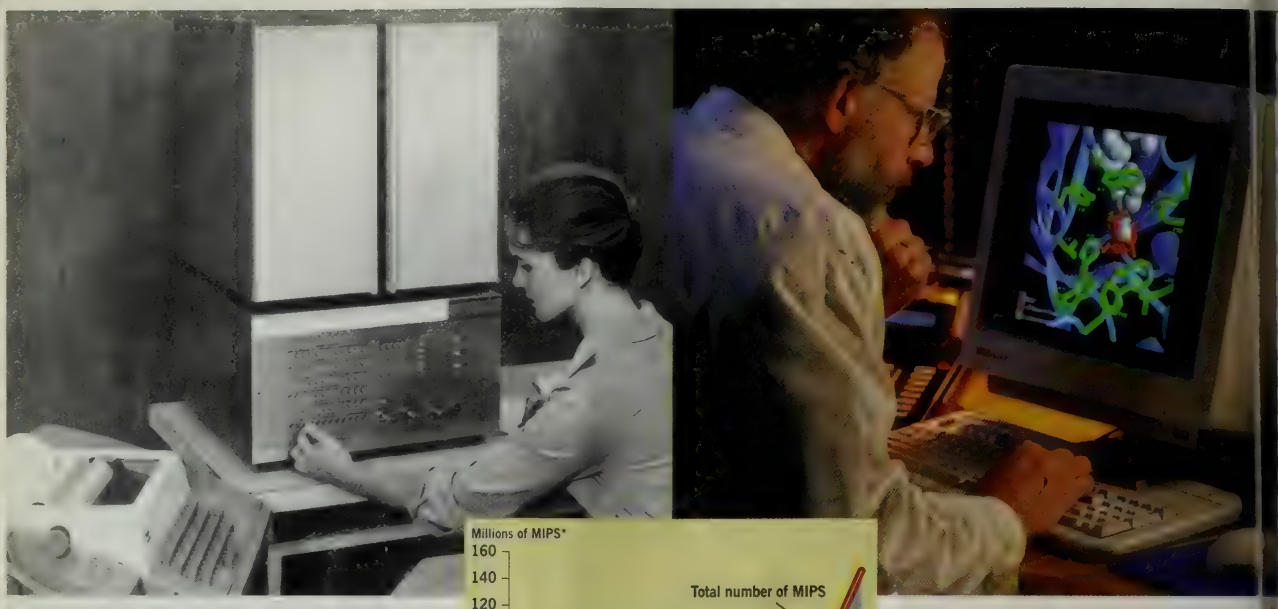
Of course, not all challengers find a market, as Christensen learned firsthand. From 1984 to 1989 he ran a startup company in very high quality ceramics parts. "Whenever we came out with a new product," he says, "the dominant producer, Japan's Kyocera Corp., would counter with its own version." He spreads his fingers in a circle over his heart and concludes ruefully: "You may land ahead of the technology trajectory, but you land there with a big target on your chest." The company nearly sank in the early 1990s, but finally found a niche in cell phones, which didn't exist in the mid-1980s.

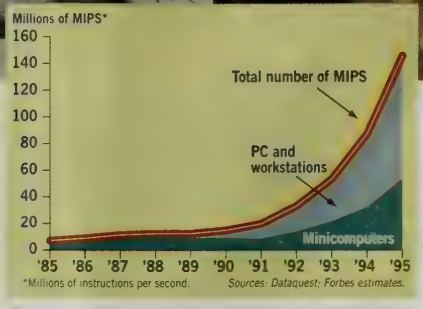
The lesson for entrepreneurs: Doing better what a bigger company already does well is risky. Better to start in a neglected market. Honda did that. *The Innovator's Dilemma* tells the tale.

Doing better what a bigger company already does well is risky. Better to start in a neglected market. Honda did that.

Honda dispatched three executives to Los Angeles in 1959 to sell a bigger, souped-up version of its little Supercub urban motorcycle. Few dealers bit. The Hondas sold were so faulty at highway speeds that warranty costs nearly sank the company.

The Honda execs vented their frustration by dirt-





Some toy

Minicomputer-maker Digital Equipment disdained the PC as a toy. Then PCs and workstations took over the industry.

biking on low-tech Supercubs in the hills east of Los Angeles. Neighbors and onlookers clamored for them. Thus was a new strategy born. Honda began hawking its cycles through sporting goods stores. Just a toy? Maybe that's what the big bike makers thought. Honda's sales zoomed. By the 1970s the firm had mastered large-bike engineering and was capturing markets that once belonged to mighty Harley-Davidson, Inc. and BMW AG.

Christensen's lesson has already had an impact. For example, Arthur Mannion of Danbury, Conn.'s Sure Power Corp. read an early version of Christensen's work in the *Harvard Business Review*. He realized his fuel cell power systems could not compete on price with juice from the local utility. So he sought a niche that would value the system's virtue—reliability—more than price. Namely, firms heavily reliant on computers, which can't take even a split-second outage. "One Wall Street investment house told us they'd lose $8 million a minute if their system went down," smiles Mannion. He signed his first deal in July, with the First National Bank of Omaha. If his idea takes off, who knows? Maybe he can get the volume he needs to compete on price.

Might Microsoft succumb to a stealth attack? "They've overshot the market in s many products," s vs Christensen.

Electric utilities are already under fire from little turbines that allow customers to produce their own juice, at savings of 10% o more off utility prices (FORBES *Mar. 9, 1998*).

Says Tony Prophet, president o AlliedSignal's power systems sub sidiary: "We expect every majo fast-food, discount, grocery an department store chain to order a least one of our [75-kilowatt] gen erators. If it works out, we think they'll order from dozens up t hundreds."

Outfits like Sonat and Unicom will install and maintain the units. "One utility executive told me that his company had 22,000 megawatts on their grid, and the potential for a little 75-kilowatt machine even to show up on his radar screen was unthinkable," reports Unicom Vice President Mark Kuntz. "A lot of utilities view it as a hobbyist kind of thing." Hobby? Sure, just like those Hondas and those Apple IIs.

Could golf carts sweep into the automobile industry? Maybe. Look at what happens when big automakers try to tackle the market for electric vehicles. A typically laughable result: A Chrysler minivan bearing at least 1,600 pounds of batteries and a $120,000 price tag. Christensen says that Textron, Yamaha, Bombardier and other golf-cart manufacturers have already sold a reported 400,000 electric carts to people who use them on ordinary city streets. "You can market it as something to drive around the community. Simple, quiet, convenient, stylish."

Christensen chuckles. "The automakers are slaving away in the lab, spending hundreds of millions of dollars to improve battery technology. Meanwhile, the problems will get sorted out by these other folks." Detroit, watch out from below. ■

Gentle giant

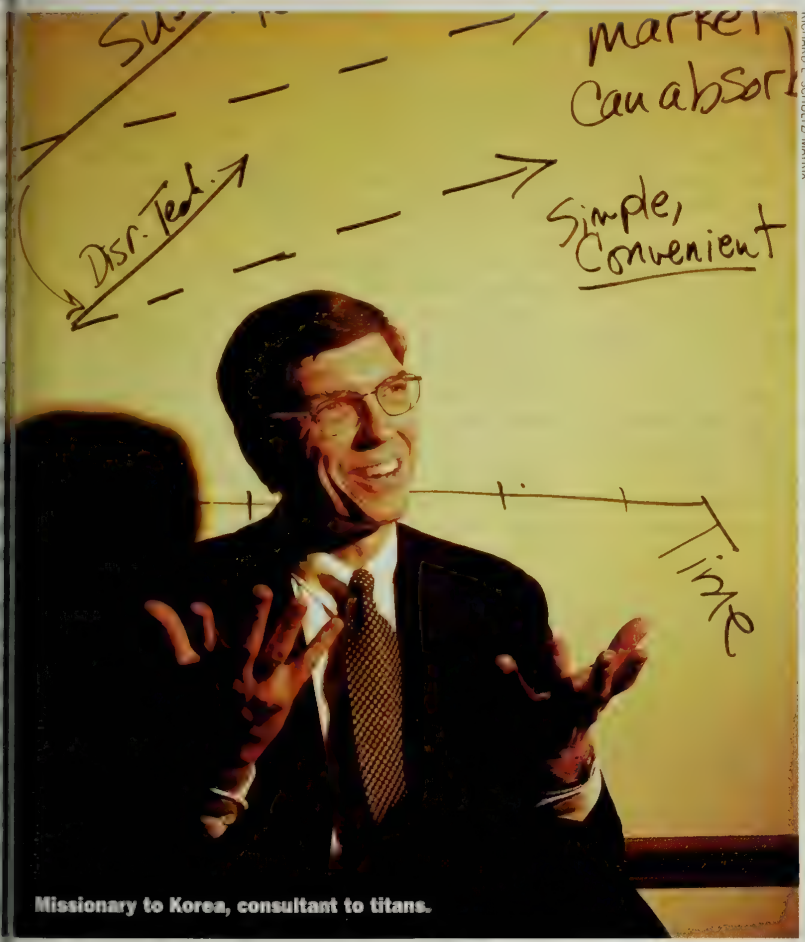
CLAYTON CHRISTENSEN, 46, is hotter than café latte among the technoscenti. Intel, Compaq, Hewlett-Packard, Eastman Kodak and Lucent are among his consulting clients. He's booked for a year for the one day a week when Harvard Business School, where he teaches, lets him jet off for consulting. He gets fan mail from the likes of American Express Vice Chairman Richard Karl Goeltz, Houghton Mifflin Chairman Nader Darehshori and PalmPilot coinventor Donna Dubinsky.

Yet Christensen, at 6 foot 8, is improbably gentle, with a soft voice and self-deprecating manner. Strange to find a former Rhodes Scholar (in economics), White House Fellow and Harvard Doctor of Business Administration so modest.

Without that virtue, he'd never have written *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail.*

"You hear academics ridicule professional managers—'Gee, didn't they do a dumb thing!'" says Christensen. "I thought, 'These people are at least as smart as I am. There must be a reason why such smart people make bad decisions.'"

Nestled in Christensen's bookshelves, near the basketball shoes he dons in the adjacent Harvard gym to shoot hoops with students, are all seven generations of computer disk drives. The first 14-inch drive, used in mainframes, dwarfs the latest 1.3-inch model. For his book, he studied intensively who won and who lost at each stage. The lessons he drew are why Intel and the rest hire him.



RICHARD E. SCHULTZ/MATRIX

Missionary to Korea, consultant to titans.

Christensen grew up bright and thoughtful, the second of eight children in a Mormon family living on Salt Lake City's working-class West Side. His father ran a department store section and once brought home some college pennants. His mother, Verda Mae Christensen, remembers Clayton, at age 3, learning to read from those pennants. At 9, he started reading the *World Book Encyclopedia* from cover to cover. It took three years.

He won Harvard and Yale scholarships but yielded when his tearful mother begged him to stay at Brigham Young University. Two years as a missionary in Korea gave him a lifelong yearning to help others. On his return he was axed from Brigham Young's basketball team for not being mean enough. (His son Matthew plays on Duke University's team.)

"Most people in his position assume you're an idiot unless proven otherwise," says Hewlett-Packard general manager James Davis, who has known Christensen since 1997. "Clayton says, 'Explain this. How does that work?' Many times, I've thought I was teaching him, and I just run a little [chip design] business for HP."

Christensen remains the inquisitive, steadfast youth who courted the girl he met in a freshman religion class for six years before she agreed to marry him. They now have five kids. Still a devout Mormon, he keeps in touch with the Korean community in Boston and has helped some immigrant families there.

The corporate consulting business is known for its sharp elbows and big egos. But the meek sometimes inherit a nice piece of business, too. Christensen gets close to $10,000 a day for his moonlighting. –T.M.

By Stephen Manes

Home network shopping

AH, THE JOYS of the multicomputer family! The kids monopolize the modem line; Dad lugs his floppy disks up to Junior's room and begs to use the printer. And Mom's PowerPoint presentations are getting too big to fit on those floppies.

The solution? If the computer industry has anything to say about it, it's the networked home. All the machines will be connected happily to one another, blissfully sharing a modem, a printer and lots of files. Multiplayer search-and-destroy games from one end of the house to the other? No problem!

Nerds, of course, already have such homes. Macintoshes have long come with networking hardware and software. Windows includes the software; network cards are cheap optional extras. But nerds are willing to do two things most of the rest of us are not: pull cable through the walls and fiddle with network software until it works.

The promoters of home networking do their best to paper over the software problems, but their big effort is in solving the wiring problems. The new home networks either piggyback on existing house wiring or put radio transmitters on your computers.

The catch is that the wireless connections and the piggybacking schemes are rather slow. Standard wired networks run at nominal speeds of 10 to 100 megabits per second or faster; most of the home network options can't do better than a single sorry megabit. In theory, that's 20 times better than a modem; in practice, it's nowhere near that good.

Slowest of the options is the Intelogis PassPort system, which sends its signals across an existing network of wires—your house's AC electrical circuits—at a nominal rate of 350 kilobits per second. Members of the Home Phoneline Networking Alliance (www.homepna.org) propose to use a different extant network—the house's phone wiring—without disturbing your voice connections. Phone-line systems rated at 1 megabit per second should be available later this month at prices as low as $50 per machine; a 10-megabit scheme developed by Epigram may be on the market by midyear.

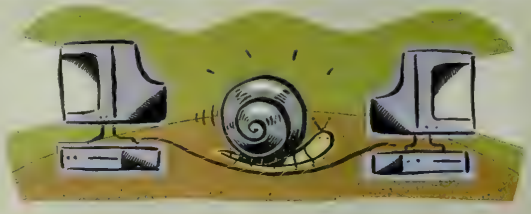
But why be tethered to cables when you can do without them? I tested two recent wireless arrivals: HomeFree from Diamond Multimedia Systems and Symphony from Proxim. For about $200 (HomeFree) or $300 (Symphony), you get two wireless network cards that promise to let you share printers, files and a single modem within a radius of 150 feet. With more cards, you can network up to 10 machines (Symphony) or 16 (HomeFree). Both systems use spread-spectrum radio in the 2.4-gigahertz band, which can go through walls but is unlikely to interfere with anything but some rare cordless phones. Both use special techniques to ensure that nosy neighbors can't pluck your data off the airwaves and Internet hackers can't raid your files. HomeFree's raw data rate is 1 megabit per second; Symphony claims 1.6.

I tried the simplest possible configuration: one laptop unit radio-linked to one desktop machine whose modem could dial the Internet. Symphony worked significantly better than HomeFree, but both systems made me understand why there's a job classification of "network administrator."

The hardest step in setting things up may be wrestling open a desktop computer to install a plug-and-play ISA card. HomeFree's antenna is a stub of plastic that sticks out the back of the machine; Sym-

Not so fast!

A SPECIAL NOTE on terminology: In the digital world the term "up to"—as in the phrase "up to 1 megabit per second"—generally means "not close to."



In the real world "56K" modems never communicate at the 56-kilobit data rate you might expect (let alone the 56-kilo*byte* rate novices often mistakenly assume). One reason is an FCC-mandated power restriction; another is that phone lines clean enough to deliver top speeds exist mainly in test labs.

From the user's point of view other network numbers are even more inflated. That's because they specify a raw data rate that includes overhead bits—and there can be plenty—inserted to ensure that data get to the right place and arrive intact. The throughput of computer files is significantly lower.

How much lower? Popular "10-megabit" Ethernet networks rarely achieve more than 8 megabits per

Stephen Manes, a computer industry journalist since 1983, is the coauthor of *Gates*, a biography of Microsoft's chairman.

hony's offers more flexibility (and, alas, visibility) as a eparate little tower whose wire plugs into the card. he cards worked fine on my machine, but if your omputer's 16 scarce IRQ lines are already spoken for, ou may have to disable some other device. PCI ver- ions will make more sense in such cases, but they ren't yet available. The PC cards for laptops have black lastic antenna stubs that stick out the side.

Despite some glitches in installation, both of these adio networks let you share printers, files and a single nodem, largely through plumbing built into Windows 5 or 98. But unlike Symphony, HomeFree doesn't

econd of throughput and often plod along at much ower speeds. My test "1- negabit" HomeFree vireless network achieved nly about 350 kilobits er second when copying iles from one machine to nother, and then only when the two computers were near each other. Under the same condi- ions the "1.6-megabit" Symphony pushed 450 kilobits across the ether each second.

Share bandwidth, as you do over a cable modem, a companywide high-speed phone line or the Internet, and your personal throughput drops even further. Moral: Take bandwidth claims with a shaker of salt. –S.M. ■

set itself up to allow access to files on remote computers or even tell you how to do it. A Diamond product manager said manuals were being rewritten to remedy that omission.

Even when laptop and desktop machines were in close proximity, Symphony was about 30% faster than HomeFree; as distance increased, HomeFree's connections deteriorated much more severely than its competitor's. Symphony let me use my home office machine's Internet connection from my laptop as I lounged in a living room recliner one floor, two walls and 50 feet away; Web pages didn't appear as quickly as on the desktop machine, but speed was acceptable. HomeFree's badly degraded performance at that distance meant waits that made me long for my old 14.4-kilobit modem.

With Symphony, the remote machine worked reasonably well, even when someone was using the main one; HomeFree often had trouble transferring files, leaving my desktop machine littered with zero-length documents that refused to be deleted. Though both systems can order a remote modem to dial the Internet, only Symphony lets you disconnect it from afar; it also lets you switch a laptop machine between home and office network setups with a single click.

By sharing an Internet connection (to which more than one computer can be hooked up at once), family members can use a network to save on Internet and telephone bills. Alas, Proxim says its system won't work for cable and DSL modems without a $400 attachment. It plans a software solution, too.

Power management must be configured with care: If one computer goes to "sleep," links can drop unexpectedly, and error messages won't explain why. Communication's no better when it comes to printing; if you're downstairs trying to use a printer that's turned off or out of paper upstairs, it'll probably take a climb to figure out what's going on. Proxim's diagnostics confirm that connection quality can suddenly plummet from "excellent" to "poor" for no apparent reason.

Networking can be handy, but before you try it, consider other solutions. If contention over a printer is the issue, you're probably better off buying yourself a new one and giving the old one to the kids. If phone lines are scarce, adding new ones may give you more flexibility than installing a network. Need to share files? Swap them as e-mail attachments.

Well-funded startup ShareWave is promoting forthcoming wireless solutions rated at 4 megabits. An outfit called Enikia promises 10-megabit speeds over AC wires for the year 2000. A variety of cheap phone line solutions are just gearing up. In short, this market is moving so fast it can't hurt to wait. ■

Traditional protein design relies on trial and error. Stephen Mayo wants to reduce it to a system.

Better than Mother Nature

By Dolly Setton

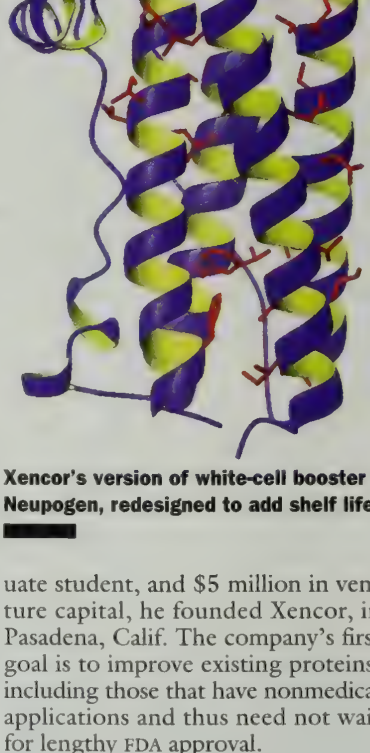
PROTEINS DO MOST OF the body's work: Hemoglobin carries oxygen, insulin gets cells to process sugar, endorphins produce the runner's rush. A protein's function depends on its shape, and its shape depends on how its chain of amino acids folds up. It's a fiendishly difficult puzzle, one that drug companies would dearly love to solve because it would let them design proteins with entirely new attributes.

Why is protein-folding hard? Even in a small protein, with 100 amino acids, the 20 different kinds of amino acids can line up in nearly 20-to-the-100th-power different ways. That's more combinations than the number of atoms in the universe.

Scientists design proteins now, but not from scratch. Eli Lilly, for instance, improved the absorption of injected insulin by changing a molecular feature in part through trial and error. Another approach to protein design depends on the mass screening of thousands of slightly different versions of a given protein. This approach is efficient when you are changing only a handful of amino acids. Go above about five such changes, though, and the combinatorial explosion will kill you.

Stephen Mayo, 37, a structural biologist at the California Institute of Technology, went about the problem in an entirely different way. He started with the protein's structure and then worked backward to find the best sequence that would give rise to that structure.

Mayo is commercializing his discoveries. In October 1997, with help from Bassil Dahiyat, his former graduate student, and $5 million in venture capital, he founded Xencor, in Pasadena, Calif. The company's first goal is to improve existing proteins, including those that have nonmedical applications and thus need not wait for lengthy FDA approval.



Xencor's version of white-cell booster Neupogen, redesigned to add shelf life.

An example is the enzymes that commercial paper factories use to release the lignin in wood pulp, leaving only cellulose behind. Because available enzymes break down at high temperatures, processing plants run cooler than they should, taking more time and requiring harsh chemicals that may soon be banned for environmental reasons. Xencor aims to tool the enzymes to withstand heat.

Heat resistance matters in medicine as well. For instance, insulin and human growth hormone must now be refrigerated. Throw in a few changes that cause the protein to remain stable when warm and the cost of keeping such drugs on pharmacy shelves will drop.

Mayo's protein-design software uses a bagful of mathematical tricks to reduce the number of combinations the computer must test. Some of the tricks resemble those programmers use to get computers to play chess. The idea is to prune unproductive branches from the enormous tree of possibilities that arise when a computer looks several moves ahead.

"Input the structure of a protein into the computer program," says Dahiyat, "and the program tells which amino acids to change, gives a list of candidates and ranks them in terms of stability."

Mayo's approach faces several obstacles. To improve on an existing protein, Xencor must have detailed knowledge of the protein's structure, and that requires a lot of X-ray crystallography and other modeling techniques. Then there's a big problem with drug proteins in general: The stomach digests and thus destroys them. Proteins must therefore be injected.

To get around that problem, Xencor might be able to develop ways to discover the active site of a protein—the warhead, as it were—and reproduce it in a small molecule that wouldn't be digested. "I have an intuitive feeling the same methodology would work for small molecules," Mayo says, "but we have not proved this yet."

Xencor is in talks with five large biopharmaceutical companies about forming partnerships and recently closed a research deal with an unidentified protein producer. Xencor plans to make money both licensing products and selling research to well-heeled corporate clients.

This isn't Mayo's first business venture. Thirteen years ago he cofounded another chemical modeling concern, Molecular Simulations Inc., with a $500 investment. It was recently acquired for $150 million in stock by Pharmacopeia. ■

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By Joseph R. Garber

Child's play

Check out the NASA-sponsored Web site. It teaches kids aeronautical engineering and lets them use a virtual wind tunnel.

THERE'S NO SHORTAGE of good kids' software. Every year entrepreneurs create plenty of ingenious educational programs. However, getting them in your moppets' hands is another story.

Because educational software doesn't sell as well as bloodthirsty games, retailers don't stock much. Cause and effect, venture capitalists aren't terribly fond of the genre. The result: Most developers are shoestring shops that can't afford to promote their wares, much less push them into the schools.

For this reason, I am thankful for trade shows like San Francisco's annual mid-October Children's Interactive Expo. Where else can parents and teachers go to find suitable kiddie-ware?

A bumper crop of delightful programs was on display at last year's Expo. The star of the show was Stagecast's *Creator,* developed by Apple's legendary former chief scientist, Larry Tesler. Written in Java so that it runs on most computers, *Creator* lets children of virtually any age build astonishingly intricate graphical simulations of everything from chemical reactions to full-scale ecological environments—and does so using easy point-and-click logic that will painlessly teach them a bit about computer programming, too.

Equally eyepopping, although much simpler, is *Familiar Blocks* from Out of the Blue Design. This uses gorgeous 3-D graphics to teach toddlers the alphabet and phonemes. I think it beats the far more popular *Dr. Seuss's ABC* from Random House hands down.

For sheer amusement, I'd recommend *You-Betcha,* Interactive's Home Gene Splicing Kit, a wacky program that lets kids blend human and animal photographs, with hilarious results. If you think Aunt Martha is acting catty, here's your chance to make your point.

On the serious side, Videodiscovery has a four-CD tutorial on science careers called *Real Science.* It's hip, informative and fascinating—rather like a PBS show for teens, on which, in point of fact, it's based. More playfully interactive, Red Hill Studio's *InventorLabs* series takes you on virtual-reality tours of great scientists' workshops (Edison, Bell, the Wright Brothers, Daimler and others), letting you collaborate with simulated geniuses to build and run your own contraptions.

Want to play around with modern science? Cameo Multimedia's *Caring for Planet Earth* is preachy but thoroughly informative. Or, if you'd like your child to grow up to be a Boeing engineer rather than an ecologist, log on to NASA-sponsored www.planemath.com, a site that teaches aeronautical engineering and math by letting kids design and, in a virtual wind tunnel, test their own aircraft.

Another good children's Web site: www.ajkids.com—*Ask Jeeves for Kids.* It's a search engine specially designed for tots, so you don't have to worry about their accidentally connecting to Danish porn peddlers. Or, for real-time multiplayer learning games, try www.spiderdance.com.

For teaching youngsters about other cultures, Pentewa Interactive has half-a-dozen titles offering visually striking software on everything from potlatches to petroglyphs. Check out *Hungry Frog Inc.* for math, foreign languages and chemistry drills that use omnivorous amphibians and gross bugs to keep kids interested. If you're worried about your offspring's basic listening and auditory skills, try *Earobics* from Cognitive Concepts. Or, for reading and puzzle solving, get your youngsters Gizmo Gypsies' *The Little Wizard,* a game packed with the kind of interactive storybook graphics children 10 or younger adore.

For an outside opinion, I asked two expert consultants (Teddy Fischer, 9, and Leah Rappaport, 8) for their recommendations. "*Inventor Labs* is awesome," says Teddy. "You get to help them make things instead of just watching." Leah opines, "I liked Pentewa's software best because you can do more stuff with it than the science programs."

A final note: Good luck finding most of this stuff in a store. Instead, aim your browser at www.brainplay.com, an on-line retailer specializing in children's technology. Or check out FORBES' Web site for hotlinks to all the outfits mentioned in this column. ■

Joseph R. Garber's e-mail address is garber@well.com

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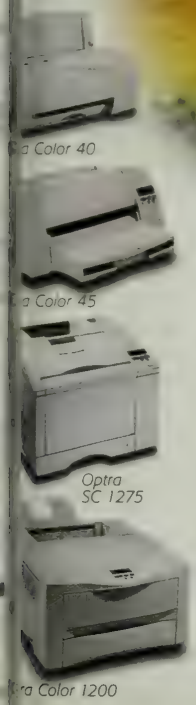

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By Marilyn Cohen

Bond trading goes on-line

This is the best deal for bond investors I have seen in my 22 years in the business.

IT'S ALMOST IMPOSSIBLE for individual investors to get a square deal in the bond market. Unlike institutional investors with their expensive, real-time databases, individuals don't have transparency—they can't instantaneously see prices across the market. So they put themselves in the hands of brokers, who pad their trading desks' markups.

SEC Chairman Arthur Levitt occasionally gripes about the bond market's unfairness. He hasn't done much about it, but the marketplace finally has. For the first time, individuals can buy bonds at competitive prices. It's happening on the Internet (no surprise), and it is the best deal I have seen in my 22 years in the business.

Behind this revolution are former retail bond broker Charles Almond and software consultant Joe Nirta, who created an electronic platform that securities firms can license to sell bonds on the Net. Their company, Bond Exchange, has a demo version at www.bond-exchange.com.

This is the future of bond trading, folks. You can search for bonds by type (Treasury, corporate, muni, high-yield) and by rating, coupon, maturity, industry and CUSIP number. Or you can just peruse lists of offerings. And that's not all. The electronic genie will do tedious calculations, spelling out call schedules and figuring the yield-to-worst-call for bonds with multiple call dates. Hooray! It will also help you build a bond ladder—a portfolio of bonds with successive maturities—showing all the data you could want, from average weighted yield to maturity to a monthly income grid.

Last month the on-line brokerage E-Trade rolled out bond trading using this platform. Next up will be Vanguard Brokerage Services, and then the discount arm of a national securities firm.

To test the system, I logged onto E-Trade looking to buy an investment-grade corporate, a high-yield bond and an AAA-rated, insured municipal. Most bonds were attractively priced. Prices on thinly traded issues were not very good, but the system lets you place a limit order to buy at or below your target price. There's a $40 fee when you trade a face value below $10,000 for a corporate or $20,000 for a Treasury bond. Your only other expense is the markup, the profit tacked on by E-Trade.

The markups I checked were small. When I searched for an investment-grade industrial bond, maturing in seven to ten years with a coupon between 6% and 9%, E-Trade offered 46 choices. I picked the Anheuser-Busch 7.1% bond due June 15, 2007, rated A+ by Standard & Poor's. For a trade of at least ten bonds, the offer was at a price of 105.89 with a yield-to-worst call of 5.83%. Was this a good deal? Checking with my network of brokers, I found that this bond's typical retail price would be 108.50, for a 5.3% yield-to-worst call. That price is 2.5% higher than E-Trade's. No contest. A discount brokerage might come closer to E-Trade's price, but would be unlikely to offer as many choices.

Some Internet prices were less compelling. The noncallable Lockheed Martin 7.25% bond due May 15, 2006 was offered by E-Trade at 109.48, yielding 5.67% to maturity. At regular retail, you'd probably pay about 110, for a 5.6% yield.

And E-Trade fell down on junk bond pricing, probably because it is not yet well connected to dealers. A Musicland 9% bond due June 15, 2003, for example, was offered at 98; you'd pay about 97 at retail.

On-line muni prices were sensational, though. I searched for issues from California and New York with coupons from 4.5% to 6%, due in seven to ten years. From 25 choices, I picked the California Statewide Community Development 5.25% revenue bond due Apr. 1, 2006, rated AAA and MBIA insured. It was priced at 108.46 for a 3.92% yield to maturity. Institutional buyers were paying just a tad less, 107.85, for a yield of 4%; that was a good deal.

Am I worried that an on-line computer program will replace bond managers like me? Not at all. The hardest part of bond investing—deciding which bonds to buy and sell among the hundreds of thousands available—hasn't changed. The transparency of Internet trading will force better prices throughout the industry, and more investors will want to buy bonds. Some will do it on their own. For them, I have seen the future, and it's terrific. ■

Marilyn Cohen is president of Envision Capital Management Inc., a Los Angeles fixed-income money manager. envision@ix.netcom.com

Kenneth L. Fisher

Report card 1998

This year's is not a record to boast about, but it's not one to be ashamed of, either.

IF YOU HAD BOUGHT EVERY ONE of this column's recommendations last year, you would have done just as well as if you put your money, on the same dates, into the S&P 500 index—no better, no worse. That's after docking all my recommendations, but not your hypothetical index investment, for a 1% commission cost.

This is not a record to boast about, but it is not one to be ashamed of, either. My material exposure to big foreign stocks reduces portfolio risk below that of an all-U.S. portfolio.

I started 1998 by recommending 100% equity—55% of that in America's 35 largest stocks, 37% in "huge foreign stocks that dominate their businesses" and 8% in "beat-up tax-depressed gold stocks—pick any ten." Being 100% equities was great. And gold stocks were up 20%—but not for long. By spring gold sagged. By Sept. 7 I told you to bail out. I hit gold's bottom almost perfectly. Ugh!

My foreign stocks reduced risk, but they sure didn't boost return. You measure foreign stocks against the Morgan Stanley EAFE Index. My foreign picks beat EAFE on average by 2%. Fine. But at 20%, EAFE lagged the S&P 500's 1998 return by 8.5%. So the international diversification and risk reduction came at a price.

Let me restate what I said a year ago. After the long string of years in which U.S. stocks have been beating foreign ones, the time will come when EAFE beats the S&P 500. I don't know when it will come, but I know it will come. So, keep up that diversification. For 1999 I think your stock portfolio should be 33% invested abroad.

Among my early foreign picks, Nissan and Rio Tinto did very badly, dropping 37% and 14%, from recommendation to year-end. I think these are just pricing and timing issues. With patience, they should be okay. If Nissan doesn't get its act together, it will get taken over for its brand names and distribution channels.

Much like a gold stock, Rio Tinto suffered from the disinflation trend that clocked all the other commodity metals producers. Still, I'd keep a little inflation hedge in my portfolio, and this is one I'd pick. By 2004 it should hit 130, which is 25% per year.

In July I picked Fiat and Volvo. They sank. These autos are driving me crazy, but I'm keeping my seat belt on. Norsk Hydro, recommended in April, fell 31%, simply reacting to falling energy prices. I would hold on for now.

I had foreign winners, too. From last January, my pick of Telefonica de España was up 52%. Nokia rose 56% after I said in the Sept. 7 column that it could rise at 30% per year for several years. Still, I would hang on to both of these.

I got lucky in the June 1 column when I told you to sell my prior successful recommendations of Banco Santander and Montedison. They fell fast, 44% and 35%, respectively. On Nov. 2 I said buy them back, and they're up 14% and 29% already.

Overall my country allocations were fine, aimed at continental Europe and Japan. Happily I avoided all the lesser-developed countries. Many investors got caught trying to call the bottom in these very volatile markets, seeming not to know that they take much longer to make bottoms than the developed Western markets.

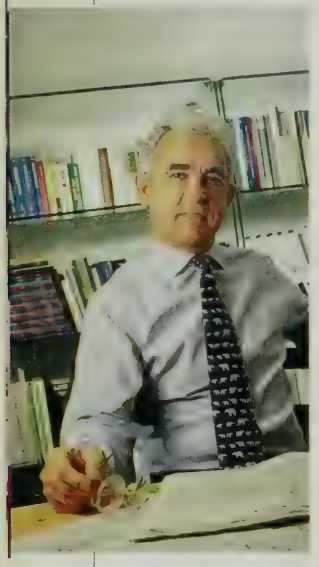
My initial 55% weight to the U.S. was too light. But my call to stick with only the 35 largest U.S. stocks was again, as in 1997, a good call. All year I caught flak from cynical readers who thought this was really dumb, leading up to my Aug. 10, dig-in-my-heels column titled "Dumb is beautiful." Those 35 largest stocks, equal-weighted, returned 40% in 1998, nicely beating the S&P 500 by 11.5%. During the year I boosted my U.S. weight to 67%, which also helped a lot.

The summer's correction jolted millions and caused many, maybe most, columnists nationally to bolt bearish. I didn't and was vindicated by December's new highs on the S&P 500. I am very proud of that string of columns, and particularly my Sept. 21, "Stay cool" column. Check it out at the Forbes Digital Tool archives, www.forbes.com/fisher. You can see all my 1998 columns there. While there, visit my "Forum" site, and, as I said on Sept. 7, complain all you want. ■

Kenneth L. Fisher is a Woodside, Calif.-based money manager. His third book is *100 Minds that Made the Market.* E-mail: kenfisher@fi.com

By Laszlo Birinyi Jr.

I am still a bull



Let your winners go and cut the losers. Stay with AOL, IBM, Texas Instruments, Pfizer, Bristol-Myers, Wal-Mart and the telephones.

A TIME FOR REFLECTION: Every January FORBES asks its columnists to review their past year's recommendations—winners and losers—and to tell readers which positions to hold and which to fold.

I had a fortunate year. If you had bought every one of the 86 recommendations made here (some stocks were recommended more than once), you would be 12% ahead of someone who had made identical investments in the S&P 500 on the same dates. On this scorecard, moreover, my picks are docked 1% for commission costs but the hypothetical index holdings are not.

I erred with two major groups, banks and airlines. The banks were sideswiped first by Russia and then by Long-Term Capital. But from the year's beginning, I noted the accumulation in the bank stocks. In January I suggested that Citicorp (now Citigroup) and Chase were worthy of your consideration and in February added J.P. Morgan and Wells Fargo to the list. While these have shown renewed life in the last several weeks, they were neither the best nor the brightest performers of the year. I continue to recommend buying both Chase Manhattan and J.P. Morgan, while Citigroup is a hold.

Airlines, which showed up in my Apr. 6 column in the form of AMR Corp. (parent of American Airlines) and Delta, continue to perplex me. With the exception of some very late flights, such as one from Greensboro to Atlanta, every one of the dozen or so trips I've taken recently has been packed. And one of the major expenses of airlines, fuel, is at a level that would have been a mirage a few years back. Yet the stocks continue to ignore the apparent fundamentals, to my disappointment and chagrin. At a certain point you have to stop fighting the tape. If you haven't already done so, close out your AMR and Delta positions.

In early February, when it was at $104, I brought IBM to your attention. I did so again in April, June, July, August, September and November. In each case, not only would you have made money, but you also would have outperformed the market. Even better than that was my recommendation of America Online. In my Aug. 10 column, the stock was at a split-adjusted $56; it ended the year at $160.

Two other technology names were likewise big winners. Texas Instruments was highlighted five times, beginning with the Feb. 9 column, when it was at $45. It has since almost doubled. In the Jan. 12 issue recommended Compaq the first of three times; the stock was up 50% for the year.

Another good call was SBC, the old Southwest Bell, which has outperformed the market by 12% in the eight months since my Apr. 6 column. A number of oth telephone stocks I cited, such as US West and BellSouth, beat the averages at low ris

The editors focused on my—and other columnists'—stock picks. I would, howeve also note my market calls. I began the year bullish and, even in the depths of despair, stayed that way. I wrote in October that th market had seen its lows and urged investors to stay the course. And I am still under the impression that the market has seen its lows.

After technology, I also scored with consumer issues. Drugs (Pfizer, Bristol-Myers Squibb) and several retailers (Home Depot Wal-Mart and Gap) would be what I call winners.

I think I did readers a service with my noncalls. I stayed away from (and continue to avoid) small stocks, and would be especially selective in foreign markets. Experts counsel that you should park some money overseas, but if you do, pick a mutual fund with a good record. Picking individual names for most investors is too hard and fraught with even more risk than buying stocks here.

Now what? As always, a good piece of advice is to let your winners go and cut the other names from your roster. So stay with AOL, IBM and Texas Instruments in the technology area; hold (and consider buying more) Pfizer, Bristol-Myers, Wal-Mart and the telephone companies.

The stock market has had an extraordinary year and an extraordinary decade. But I am not of the opinion that the bull marke is ending. I continue to believe that the surprises will be on the upside and that the names that did well in 1998 will reward yo again in 1999. ■

Laszlo Birinyi Jr. is president of Birinyi Associates, a Greenwich, Conn.-based financial consulting firm.

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By A. Gary Shilling

The acquire-and-fire economy

Synergy? Most of the $1 billion benefit from the Citigroup merger will come from cutting 10,400 jobs.

WERE YOU WONDERING why it is that so many big companies are magically finding strategic fits with other big companies? We have WorldCom and MCI, Exxon and Mobil, Hoechst and Rhône-Poulenc, Citicorp and Travelers—and lots more.

Stop wondering about strategy. What you are witnessing is just one big downsizing. The world's producers need to shrink, and there is no better time to announce a round of layoffs and writeoffs than when a merger is announced. The merger partners may talk about overlapping staffs, but the truth is that each half of the combination would have had to shrink on its own anyway.

If you want to understand the merger pressures in the oil industry, start by reading Peter Huber's essay in the Nov. 16, 1998 issue of FORBES *(p. 235)* about energy technology. Larger tankers, 3-D seismic imaging, horizontal drilling and immense offshore platforms have raised the productivity of the global oil industry. Absent a commensurate increase in demand, this productivity growth gives you an excess supply of labor. Hence the merger of Exxon and Mobil and the plan to save $2.5 billion in annual costs by laying off duplicate staff when they merge. But they would each have been cutting costs on their own. Texaco, Chevron, Conoco and Atlantic Richfield are doing just that, even without mergers.

Banks and insurers are especially vulnerable to the winds of technology. Loan automation software, teller machines, online trading and insurance on the Internet will make workers redundant. Hence, Citicorp and Travelers combining to make Citigroup. Sure, there might be some cross-selling of financial products. When the deal was announced last spring, the partners talked about increased revenues as the bulk of the $1 billion expected fruits from the deal. Now it seems that most of the $1 billion will come from cutting 10,400 jobs. The redundancies reach all the way up to the top.

Does synergy explain the Daimler-Chrysler merger? You might argue that soon there will be Neon salesmen pushing Mercedes models in their spare time. But I think the motive for the merger is better captured in the worldwide excess capacity of the automobile industry—a staggering 18 million units of annual production. To put that number in perspective, it is more than annual U.S. sales of 15 million vehicles. There will be more mergers, and there will be layoffs with or without mergers. Volvo's planned layoff of 4,000 of its 27,000 white-collar employees is no surprise.

Some mergers are designed to cut fat. WorldCom is wasting no time in slashing the overhead at newly acquired MCI, an extraordinarily high 30% of revenues, and may drop 3,750 jobs. Conseco has a habit of taking over other insurance companies, firing the employees and keeping the policies. Aetna recently announced its third large acquisition in health care in three years as cost pressures consolidate that industry.

As Western economies slow and deflation unfolds, excess capacity and excruciating competition will continue. Indeed, some firms are now anticipating disappointing profits with job cuts. Raytheon has announced terminations totaling 14,000, even though its earnings prospects appear solid.

Where can future layoffs be expected, with or without mergers? Any industry with excess capacity and weak pricing power is a candidate, even if restructuring has been going on for years. My prospects include motor vehicles; paper, chemicals, petroleum and other commodity producers; steel and nonferrous metals; farm and construction equipment; aircraft and defense contractors; telecommunications and utilities; drugs; many retailers; medical equipment; household appliances; textiles and apparel; overbuilt hotels and motels; and industrial and electrical equipment. Brokers and the business-news media will see more and bigger layoffs when the 16-year bull market ends.

The merger-and-restructuring movement that has swept across the U.S. in the past two decades is still in its infancy in Europe. Hence the proposed combinations of Britain's Zeneca Group with Sweden's Astra; Germany's Hoechst with France's Rhône-Poulenc; and French firms Sanofi and Synthelabo. And in U.S. downsizing, you ain't seen nothing yet. ■

A. Gary Shilling is president of A. Gary Shilling & Co., economic consultants and investment advisers. His firm publishes *Insight*, a monthly newsletter covering the business outlook and investment strategy. His latest book, *Deflation*, is published by Lakeview Publishing (1998). E-mail: shil@ix.netcom.com

VIEWPOINT

Commerzbank's focus on German and European economic issues 1/99

1999: German economy still on growth path

1999, the German economy will feel more of the pact of the crisis in many emerging markets and the ep recession in Japan. We put the resulting loss in tput at roughly three-quarters of a percentage point. e to good overall conditions for growth in Germany d in Euroland, however, there is only a slight risk of tright recession. But growth of around 2% in 1999 – ther less than for Euroland as a whole – will hardly sufficient to bring unemployment down significantly. far, the new government has failed to take the appropriate measures to ensure a lasting improvement. e intensification of competition brought by monetary ion will increase the need for structural reforms.

As predicted a year ago, the German economy grew by 2¾% in 1998. With the exception of construction, even the structure of demand was correctly forecast: domestic demand picked up, with exports continuing to expand at a disproportionately high rate. All in all, stronger growth, due in part to an increase in business investment, caused an even more pronounced improvement in unemployment than we had expected.

However, in the course of 1998, exports in particular lost momentum, reflecting a sharp downturn at the global level. Above all, those regions which contributed most to export growth in recent years are showing signs of weakness, if not outright decline.

As a result, the outlook for world economic growth is crucial for an assessment of the prospects for the German economy in 1999. The situation in Japan and emerging Asia should stabilize this year, but the worst is yet to come in Russia and Latin America. While these two markets do not absorb a particularly large share of German exports, Latin America takes roughly a fifth of US deliveries abroad. Thus the key question is whether the United States can be relied upon to show continuous growth again this year. A positive surprise as in the past two years is unlikely, given the record low households' savings rate, a very tight labour market and a burgeoning current-account deficit.

While the growth rate for German exports will decline further, there appears to be little scope for a rise in domestic demand. Business investment will be hit not only by lower sales expectations but also by the new government's lack of clear direction in economic policy. All the same, construction investment might show a modest rise for the first time since 1995. The corporate sector as a whole, however, will have to shoulder a larger tax burden and some tax exemptions that have supported growth are to be abolished. Increases in energy taxes will reduce the net tax relief for private households to a few tenths of a percentage point of disposable income and employment growth will slow, making a rise in private consumption sufficient to offset the loss in export demand fairly unlikely.

Fortunately, though, the inflation outlook continues to be good. Even with unit labour costs rising moderately – after three years of decline – and oil and raw material prices no longer falling, inflation should be only around 1¼%, giving no ground for fears of deflation.

On balance, the current cyclical recovery will not do much to alleviate Germany's most serious economic problem – unemployment, which will probably average 4 million in 1999. But even a more pronounced upturn would not be enough to reverse the long-term trend. The government's commitment to tackling the problem will have to translate into far-reaching structural reforms.

Economic outlook for Germany and Euroland
at constant prices; percentage change on year

Indicator	Germany		Euroland	
	1998*)	1999	1998	1999
Private consumption	1.5	2.5	2.5	2.8
Government consumption	-0.3	1.3	1.3	1.8
Machinery and equipment	8.8	6.5	6.5	5.3
Construction	-4.5	1.8	–	–
Domestic demand	2.5	1.8	3.3	2.5
Exports	6.8	3.3	–	–
Imports	5.9	3.3	–	–
Gross Domestic Product	**2.8**	**2.0**	**2.8**	**2.3**
Consumer prices	1.0	1.3	1.2	1.5
Employed[1]	33.98	34.19	113.60	115.00
Unemployed[1]	4.27	4.03	14.10	13.30

**) GDP and components; 1st to 3rd quarter; 1) in millions.*

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COMMERZBANK

Edited by Matthew Schifrin

Surviving a heat wave

LANDRY'S SEAFOOD RESTAURANTS (Nasdaq: LDRY) is a Houston-based chain that serves margaritas and shrimp quesadillas on outdoor patios. Last summer's El Niño drove temperatures into three-digit territory for weeks on end. Earnings of this $385 million (1998 projected revenues) outfit slumped to an estimated $29 million, or 96 cents a share, last year, down from $1.03 in 1997. The stock has stumbled to $7.25.

At that price, Bruce Geller, a portfolio manager at Dalton, Greiner, Hartman, Maher in New York, is willing to bet on a rebound. Landry Chief Executive Tilman Fertitta owns 11% of the company's stock and has lost $75 million in seven months. Says Geller: "Trust me, he wants it back up."

Fertitta may get it there by cutting expansion plans, lowering menu prices and boosting ad spending. Geller thinks Landry's stock is worth at least $10 in a liquidation (it owns waterfront real estate) but will climb higher than that before the end of the year. –STEPHANE FITCH

Stretched

WOLFORD AG, the small but very hot Austrian producer of high-end hosiery, is seen on fancy displays and legs all over Europe.

Wolford AG's new tights for men

What's next, tutus?

Now this fashionable outfit is making a big push in the U.S., and its ADRs (o-t-c: WLFDY) are getting attention. More attention than they deserve, we think. These $11.50 shares are worth more like $6.50.

With its classic pantyhose market stagnating in Europe, Wolford has been moving into things like $400 bodysuits, a bodysuit being something akin to a ballet leotard. The company also offers pantyhose for men and novel items like "Star(c)k-Naked," a one-piece combination, including stockings, that can be worn as a dress or skirt.

Faddish, says one money manager dismissively. He also worries about a company that had but $135 million in volume last year planning grandiose capital spending: $34 million, much of it for a fancy, expanded headquarters.

–CAROLINE WAXLER

Report card

LAST YEAR was a bad one for investors who, like Streetwalker, lean toward value stocks. In a market that was up 26%, our 63 buy recommendations were off an average 7%. That's after we docked ourselves 1% for commissions on each position.

Bear in mind, though, that our recommendations were spread across the year. The average relative-to-market performance was 80%. What this means is that someone who bought every one of the stocks would have ended the year with 20% less money than someone who bought shares in a no-load index fund on the same dates.

On the short side? The 21 we wanted you to sell averaged a gain of 8%. Again, the relative-to-market performance was 85%—or 15 points behind the market. Not bad. But it would have been better to have shorts that went down in absolute dollars.

Momentum stocks were the place to make money last year, especially those relating in any way to the Internet. We recommended only one Internet-flavored stock—Macromedia, up 111%.

Our big losers included Patriot American Hospitality, Inc., down 51% because its got into trouble paying back its high rate debts; Harnischfeger Industries, off 70% on weak paper prices; and PhyCor, an operator of medical clinics, off 72% because the company had trouble integrating smaller physician practices into larger groups. We urged CML Group on you after the Bass brothers took a big stake, but these illustrious speculators didn't stop CML subsidiary Nordic Track from drifting into bankruptcy in December.

Last year, as he did in 1996, James Marks gave us our best Streetwalker. Marks, an analyst now at Deutsche Bank, recommended Sykes Enterprises in November. In just two months shares of this misunderstood computer help desk company shot up 112%.

Another top pick came from Andrew Cummins of hedge fund Explorador Capital. He said Chile's third-largest supermarket chain, Supermercados Unimarc S.A., had been oversold in the global markets meltdown. Unimarc finished the year at $4.19, up 44%.

Our three best shorts were medical devices vendor PLC Medical Systems, Viasoft, which makes software to fight Y2K computer bugs; and private mortgage insurer MGIC Investment Corp., which fell victim to falling mortgage rates. These three averaged a decline of 70%.

Worst short of the year: Nokia, at split-adjusted $36. Today the stock is around $120.

For continuous updates of Streetwalker recommendations, go to forbes.com/streetwalker/picks.htm.

–S.F. and SAMANTHA LEE ■

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$ 25,000	$0	$ 75	$125
$ 50,000	$0	$125	$175
$100,000	$0	$150	$275

*Based on a July 1998 survey of Fidelity and Charles Schwab for purchases placed through a representative for no-load funds such as Vanguard or T. Rowe Price. Savings may vary based on the size and nature of trades. Fees and commissions subject to change. A complete fee schedule is available upon request.

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BY ROBERT A. SKEELES

JOHN E. LENNON, comanager of Boston-based Colonial Fund ($1.7 billion assets), searches for relatively undervalued technology stocks. Since August the fund found enough technology stocks with sufficiently low P/E multiples that it increased its stake in the sector from 6.7% to 11.4%.

Two suppliers of equipment for manufacturing semiconductors, Applied Materials (AMAT, $43) and Teradyne (TER, $42), top Lennon's recent buy list. He thinks both firms will exceed their consensus 1999 earnings forecasts as demand increases from rebounding Asian markets. Lennon expects Teradyne to earn $1.95 a share this year, versus a Street consensus estimate of $1.42. And he thinks that Applied Materials could earn as much as $2.07 a share, rather than analysts' mean forecast of $0.63.

Special focus

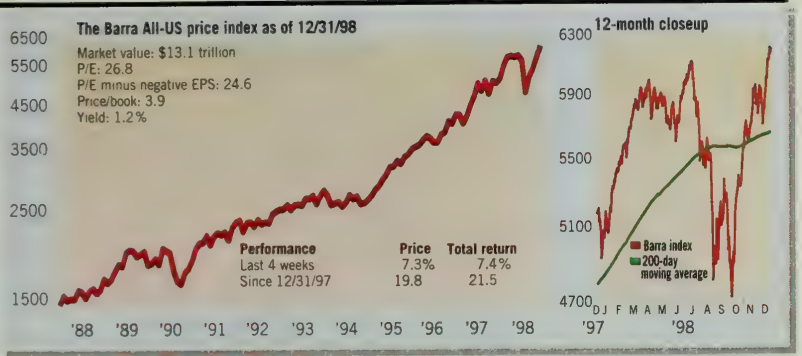
The new year could be a prosperous one for apparel manufacturers, thanks to the strong dollar and low-cost labor in Asia and Mexico. For the companies below analysts expect 1999 profits to grow an average of 22% over 1998. These stocks sell for an average 12 times estimated 1999 profits, versus 28 for the S&P 500.

Markdown prices

Company	Recent price	EPS growth '99 vs '98
Authentic Fitness	$18.25	18%
Intimate Brands	29.88	16
Jones Apparel Group	22.06	25
Nautica Enterprises	15.00	14
North Face	13.00	38
Pacific Sunwear of Calif	16.38	28
Tommy Hilfiger	60.00	20
Warnaco Group	25.25	17

Sources: Market Guide via OneSource Information Services; IBES Express.

The overall market



Closeup on the markets

Index or investment	2-week change	% change from 1 year ago	% change from 5-year high
Barra All-US index	5.3%	19.8%	0.0%
S&P/Barra Growth index[1]	5.2	40.6	–1.3
S&P/Barra Value index[2]	2.9	12.5	–2.5
Dow Jones industrials	3.4	16.1	–2.1
S&P 500	4.2	26.7	–1.0
NYSE	4.5	16.6	–0.8
Nasdaq	7.3	39.6	0.0
PSE Tech 100[3]	7.8	54.6	0.0
EAFE[4]	3.5	18.2	–3.2
CRB futures index[5,6]	0.2	–16.5	–27.0
Gold[5] (Comex spot)	–1.1	–0.4	–30.6
Yen[6] (per $US)	–2.4	–13.1	–23.0
Oil (W Texas Intermediate)	9.2	–32.2	–54.7

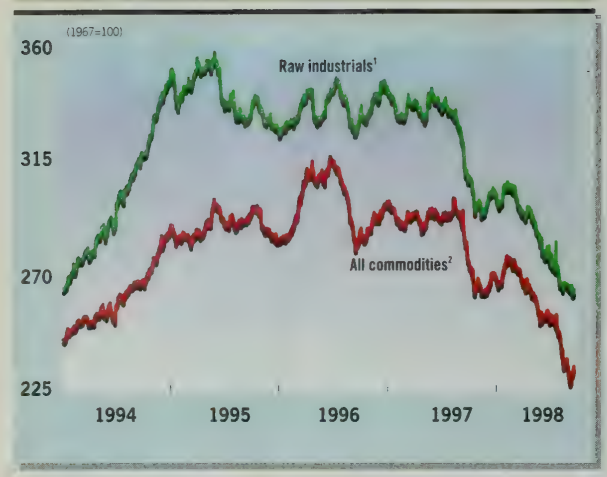
What the funds are buying and selling[7]

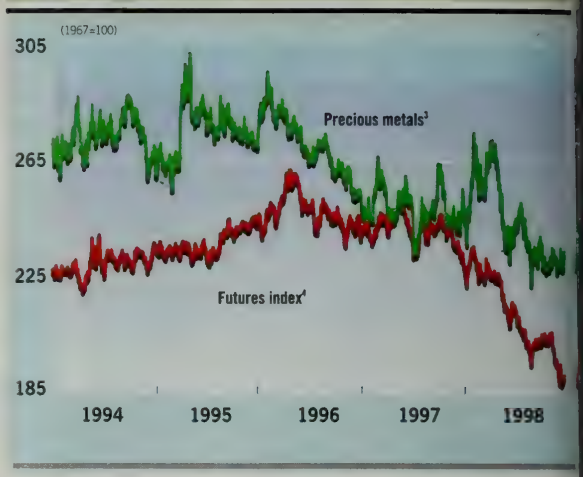
Buying	Recent price	Market value ($mil)	1999 EPS[8]	Selling	Recent price	Market value ($mil)	1999 EPS[8]
Allegiance Telecom	$12.13	$610	$–3.87	ContiFinancial	$7.13	$333	$2.39
Casella Waste Systems	37.13	516	0.95	Imperial Credit	8.38	309	1.46
Copart	32.38	431	1.36	Inland Steel Inds	16.88	367	1.10[9]
Meta Group	29.75	345	0.94	Premisys Communications	9.19	221	0.44
Xomed Surgical Products	32.00	388	0.97	WMS Inds	7.38	207	0.10

The best and worst performing industry factors[10]

Best	2-week change	Change since 12/31/97	Worst	2-week change	Change since 12/31/97
Trucking	12.6%	–3.7%	Real estate	–1.9%	7.0%
Water transport	12.4	10.6	Precious metals	–1.9	10.4
Cosmetics	11.8	10.3	Photographic, optical	–1.0	3.6
Containers	10.0	–10.3	Life insurance	–0.9	32.1
Savings & loans	9.6	–7.0	Pollution control	0.8	14.3

Data for period ending 12/31/98. The Barra All-US price index consists of all publicly traded U.S. common stocks for which price quotations are available and ordinary shares of foreign stocks traded on U.S. markets. ADRs, REITs and closed-end funds are excluded. [1]Total return of more than 150 large-capitalization stocks that have high historical earnings growth and have predicted above-average earnings growth. [2]Total return of more than 300 large-capitalization stocks characterized by low price-to-book ratios, high yields and low price-to-earnings ratios. [3]A price-weighted index of 100 widely followed U.S. technology stocks. Base value 12/31/82 = 50 (adjusted). [4]A dollar-denominated capitalization-weighted index of more than 1,100 foreign stocks. Source: Morgan Stanley Capital International. [5]Index of 21 commodity futures. [6]Source: Bridge-Commodity Research Bureau. [7]Buys and sells are tabulated by fastcheck.com, a proprietary model from the Mutual Discovery Network. For an update on the performance of these stocks see our Web site at www.forbes.com/wallstreet. [8]Consensus estimate. [9]Flash estimate is the average of a firm's estimates received over the last four weeks. Flash estimate is printed when it differs from the consensus by at least 15%. [10]Shows return after controlling for other influences, including company size, value and growth characteristics. Multi-industry firms have proportional contributions in two or more groups. *Principal sources: Barra, Inc.; IBES Express.*





BY ERIC S. HARDY

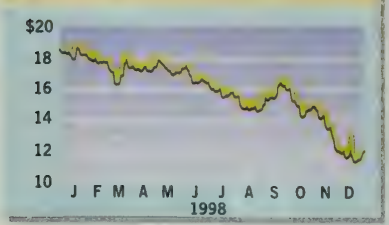
Metals, grains and energy prices collapsed in 1998. The Bridge/Commodity Research Bureau Index—comprising 23 commodities—declined 19% last year. The *Journal of Commerce* and Goldman, Sachs spot indexes of commodities prices also fell sharply. Katherine Jones, director of futures research at Prudential Securities, cites excess capacity and weakened Asian demand as the root causes of the price declines.

Not all futures are depressed, and there's still plenty of money to be made. "Most of the activity is in financial products like Treasury bond contracts, foreign currencies and stock market indexes," says Prudential's Jones.

Deflation in prices of hard assets is excellent news for the American consumer. American Skandia Life Assurance chief economist Lawrence Kudlow doesn't expect things like wage inflation or health care costs to have much overall impact on the cost of living in 1999. "The absence of inflation is the single biggest pro-growth factor in the U.S. economy," Kudlow says. He even thinks the consumer price index, which was up a minuscule 1.5% between November 1997 and November 1998, actually *overstates* the rise in the cost of living since it includes some items (e.g., tobacco and health care) whose prices are regulated by the government. Kudlow expects inflation to stay at an extremely low level in 1999, and he's bucking the pessimistic consensus forecast for GDP growth in 1999 *(see p. 48)* by calling for growth of 3%.

Commodity spotlight

March crude oil futures (dollars per barrel)



Petroleum is now selling on the spot market for $12.05 a barrel, and those who invest in the futures market don't expect any rebound in prices in the first quarter of this year. The March 1999 crude oil futures contract lost one-third of its value last year, declining from $18.58 per barrel at the start of 1998 to $12.19 on Dec. 31.

Bridge/CRB cash and futures prices

Spot indexes			Futures indexes		
Index[5]	Value	3-mo change	Index[5]	Value	3-mo change
All commodities	235.22	–8%	CRB index	191.22	–6%
Raw industrials	265.32	–6	Precious metals	234.27	–2
Foodstuffs	197.52	–12	Grains	172.84	2
Metals	218.51	–11	Industrials	185.30	–13
Textiles	237.47	–3	Livestock & meats	186.70	–2

Spot prices			Futures prices		
Commodity	Price	3-mo change	Commodity	Price	3-mo change
Copper scrap (pound)	$0.53	–14%	Mar Chi wheat (bushel)	$2.76	–3%
Corn (bushel)	2.13	7	Mar copper (pound)	0.67	–10
Print cloth (square yard)	0.91	0	Mar cotton (pound)	0.60	–17
Soybean oil (pound)	0.23	–8	Mar crude oil (barrel)	12.19	–26
Steel scrap (short ton)	84.00	–22	Apr platinum (troy oz)	367.20	3

Note: All prices as of 12/31/98. [1]Composed of 13 raw industrial commodities. [2]Composed of the 13 raw industrial commodities plus 10 foodstuffs. [3]Gold, platinum and silver. [4]Composed of 17 commodities. [5]Base for spot and futures indexes (1967=100). *Source: Bridge Commodity Research Bureau.*

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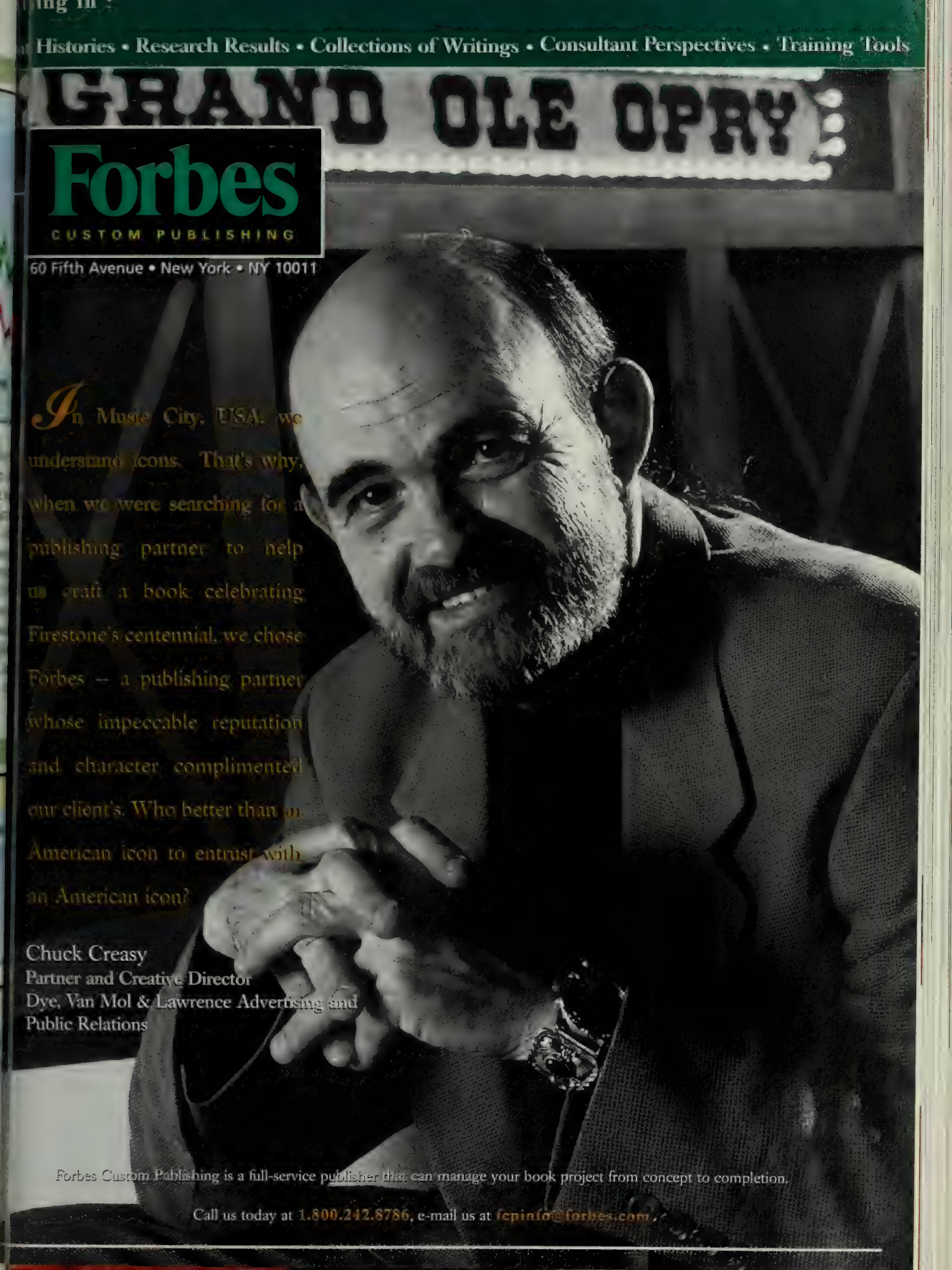

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All-weather portfolios

Have your stocks kept up in this bull market? And did they survive last summer's correction? If you are disappointed, consider taking advice from an expert.

By Mark Hulbert

NO QUESTION WHAT KIND of money manager you want to be with in a bull market—a big risk taker like Jim Collins, publisher of *OTC Insight*. Over the past 11 years this investment letter has chalked up a 23% average annual return, putting it at the top of the investment letter business for raw performance. The letter landed there on the strength of stunning results in good months that earn it an A+ for up market performance.

But when the bear strikes, you don't want to be anywhere near the kind of stocks Collins favors—stocks like Dell Computer and MindSpring Enterprises. On average, *OTC*'s portfolio slid at the heart-stopping annualized rate of 75% during bear markets since 1987. We give it a down market grade of D.

Being ultraconservative, like money man Charles Allmon has been, probably won't beat the market either. His *Growth Stock Outlook* picks terrific stocks, but has been so heavily in cash over the past decade that it has largely missed the bull market.

There is, however, a middle ground. The Honor Roll above shows the investment letters that land in the top half of the pack in both bull and bear markets. This is no mean feat since the strategies that do well in one kind of market usually do the worst in the other. One of these all-weather performers is the *Value Line Investment Survey*, which has compiled an extraordinary market-beating record over the past 33 years *(see story, p. 114)*.

Last summer's stock market correction is good news for this year's Forbes/Hulbert Investment Letter Survey, our annual rating of newsletters that recommend U.S. stocks and funds. Before that correction, the broad, sustained bull market had made it difficult to tell advisers with genuine ability from those living on mere luck.

Now the correction gives us a load of information about which advisers truly earn their pay. To mine this information, we reviewed the *Hulbert Financial Digest*'s newsletter performance database, starting at the peak of the market in 1987. We divided the ensuing 11 years into up markets and down markets. Up markets, of course, include most of the time during those years. There have been only three significant market declines: a 30% decline (as measured by the broad Wilshire 5000 index) for the three months ended Nov. 30, 1987, and two 17% declines, during the five months to Oct. 31, 1990 and the two months to Aug. 31, 1998. We graded newsletters separately for up and down market performance.

Fair-weather advisers don't make the cut. We're referring to the many letters that perform wonderfully in big market rallies but then suffer huge losses during declines. To be sure, a few of these stopped-clock bulls gain enough in rallies to produce handsome long-term returns. So why not just forget the ups and downs and focus on the 23% average gain of a letter like *OTC Insight*? Two reasons. One is that it's a rare investor who can tolerate exaggerated declines, and if you ditch a newsletter's strategy during decline you aren't likely to be following it during its subsequent recoveries. Your actual return will be far less than our official tally. The other reason is that the past 11 years have been abnormally bullish, with a 14.1% average annual total return on the Wilshire 5000. The next decade is likely to have longer or deeper corrections.

Consider another letter that does make this year's Honor Roll, *Systems & Forecasts*, edited by Gerald Appel. It hasn't done as well in up markets, earning 12% annualized and a grade of B. Yet Appel has really delivered in down markets, losing an annualized average of just 9% and earning an A.

We know that many investors will find it difficult to choose any adviser who has gained 12% per year over one who gained 23%. But keep in mind how strongly bullish the last decade has been. If the next decade is less so, then services such as *Systems & Forecasts* are more likely to give the kind of advice you can live with.

In calculating newsletters' performance, the *Hulbert Financial Digest* simulates the real-world experience of subscribers. Thus, mail delays and trading costs are accounted for. Taxes on capital gains, however, are not; so if you become enamored of a quick trading newsletter, you should follow it in a tax-deferred trading account like a self-directed IRA. ■

Honor Roll

Performance UP market	Performance DOWN market	Newsletter	Editor	Gain since 8/31/87
B	B	Chartist	Dan Sullivan	15.0%
A	B	Fundline	David Menashe	14.8
B	B	Investment Quality Trends	Gregory Weiss	13.6
B	B	No-Load Fund Investor	Sheldon Jacobs	10.0
B	A	Systems & Forecasts	Gerald Appel	12.2
B	B	Value Line Investment Survey	Value Line Publishing	12.2

All data through 11/30/98. Gains are annualized.

An exclusive club: Only these six newsletters have earned grades of B or better in up markets *and* down markets.

ating the letters

rformance P DOWN market-		Newsletter	Editor	Telephone	Annual subscription price	Gain since 8/31/87 (annualized)	Relative Sharpe ratio†	Risk
	B	Addison Report	Andrew L. Addison	508-528-8678	$250	8.4%	0.27	low
	C	Babson-United Investment Report*	Dennis Byrne	781-235-0900	268	4.3	–0.01	average
	D	BI Research	Tom Bishop	203-270-9244	110	11.6	0.59	very high
	C	Big Picture	Stephen Leeb	800-832-2330	175	7.1	0.29	high
	C	Bob Brinker's Marketimer	Robert Brinker	914-591-2655	185	8.8	0.49	average
	B	Cabot Market Letter	Carlton Lutts & Timothy Lutts	978-745-5532	295	6.2	0.26	very high
	C	California Technology Stock Letter	Michael Murphy & Dave Jones	800-998-2875	295	0.2	0.00	very high
	B	Chartist	Dan Sullivan	562-596-2385	175	15.0	0.91	high
	D	Dines Letter	James Dines	800-845-8259	195	–8.3	–0.57	very high
	C	Dow Theory Forecasts	Richard Moroney	219-931-6480	233	9.5	0.59	average
	D	Emerging & Special Situations	Robert S. Natale	800-852-1641	282	7.6	0.34	high
	D	Equities Special Situations	Robert J. Flaherty	888-417-5400	150	4.2	0.10	high
	A	Fabian Investment Resource	Douglas Fabian	800-950-8765	179	10.6	0.24	low
	C	Fidelity Monitor	Jack Bowers	800-397-3094	116	15.1	0.94	average
	A	FundAdvice.com	Paul A. Merriman	800-423-4893	125	10.1	0.93	very low
	B	Fundline	David H. Menashe	818-346-5637	127	14.8	1.07	average
	F	Granville Market Letter	Joe Granville	800-876-5388	250	–16.6	0.00	very high
	B	Growth Fund Guide	Walter Rouleau	605-341-1971	99	–0.4	–0.76	low
	A	Growth Stock Outlook	Charles Allmon	301-654-5205	235	6.8	0.65	very low
	D	Insiders	Norman Fosback/Glen King Parker	800-442-9000	95	13.2	0.76	high
	B	International Harry Schultz Letter (HSL)	Harry Schultz	(32)16-5336-84	285	2.7	–0.20	high
	A+	InvesTech Research Market Analyst	James B. Stack	800-955-8500	190	6.1	0.23	very low
	A+	InvesTech Research Mutual Fund Advisor	James B. Stack	800-955-8500	190	6.5	0.34	very low
	B	Investment Quality Trends	Gregory Weiss	619-459-3818	310	13.6	1.26	low
	C	Investment Reporter	James Kedzierski	416-869-1177	279	11.3	0.70	high
	A	Investor's Intelligence	Michael Burke	914-632-0422	184	7.0	0.52	low
	D	Investor's World	John Dessauer	800-804-0943	149	11.1	0.67	high
	B	Kinsman's Stock Pattern Recognition Service	Robert Kinsman	707-935-6504	595	5.1	0.09	low
	C	LaLoggia's Special Situation Investor	Charles LaLoggia	800-301-8974	295	5.2	0.12	average
	D	MPT Review	Louis Navellier	800-454-1395	225	17.4	0.88	very high
	C	Margo's Small Stocks	Margo Parrish	800-743-4539	189	5.4	0.17	high
	C	Market Logic	Norman Fosback/Glen King Parker	800-442-9000	179	6.9	0.29	average
	F	Medical Technology Stock Letter	Jim McCamant	510-843-1857	320	1.3	0.32	very high
	B	Moneyletter	Agora Financial Publishing	800-433-1528	88	8.2	0.47	low
	D	Mutual Fund Forecaster	Norman Fosback/Glen King Parker	800-442-9000	95	10.1	0.59	average
	A	Mutual Fund Investing	Jay Schabacker	800-777-5005	100	7.6	0.57	very low
	B	Mutual Fund Letter	Gerald Perritt	800-326-6941	89	7.8	0.58	very low
	A	Mutual Fund Strategist	Charlie Hooper/Holly Hooper-Fournier	800-355-FUND	95	7.7	0.35	average
	D	New Issues	Norman Fosback/Glen King Parker	800-442-9000	179	15.4	0.87	high
	D	No-Load Fund Investor	Sheldon Jacobs	800-252-2042	129	10.0	0.72	low
	C	NoLoad Fund*X	Burton Berry/Janet Brown	800-763-8639	129	11.5	0.75	average
	D	OTC Insight	Jim Collins	800-955-9566	295	22.7	1.00	very high
	A	Option Advisor	Bernie Schaeffer	800-327-8833	200	–4.9	–0.22	very high
	C	Outlook	Arnold Kaufman	800-852-1641	298	7.3	0.35	low
	B	Personal Finance	Stephen Leeb	800-832-2330	39	7.2	0.38	very low
	A	Peter Dag Portfolio Strategy & Mgmt	George Dagnino	800-833-2782	195	9.7	0.78	very low
	A+	Professional Tape Reader	Stan Weinstein	800-868-7857	495	1.1	–1.12	very low
	A	Professional Timing Service	Curtis Hesler	406-543-4131	185	3.3	–0.46	very low
	F	Prudent Speculator	Al Frank	949-497-7657	175	12.1	0.64	very high
	B	Ruff Times	Howard Ruff	800-773-7833	97	3.5	–0.17	low
	A	Stockmarket Cycles	Peter Eliades	800-888-4351	252	4.5	–0.05	low
	A	Systems & Forecasts	Gerald Appel	800-829-6229	225	12.2	1.28	very low
	B	Value Line Investment Survey	Value Line Publishing	800-634-3583	570	12.2	0.79	high
	D	Value Line OTC Special Situations Service	Peter A. Shraga	800-634-3583	429	6.1	0.26	very high
	C	Wall Street Digest	Donald Rowe	800-785-5050	150	0.7	–0.25	high
	C	**Wilshire 5000 Index (dividends reinvested)**				**14.1**	**1.00**	**average**

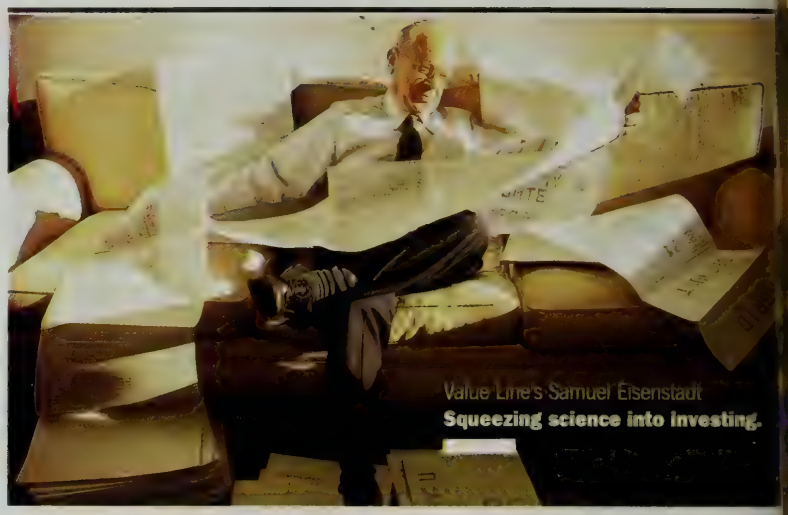
Returns through Nov. 30, 1998 for newsletters with a predominant U.S. equity focus. *Babson-United Advisors has disputed the HFD's calculations; see www.hulbertdigest.com/ub. †A number above 1.0 means the portfolio beat the Wilshire, risk-adjusted.

Source: Hulbert Financial Digest.

The momentum formula

Samuel Eisenstadt has some doubts about highfliers like Yahoo, but his system says you should own them. And his system has performed brilliantly for 33 years.

By John Gorham



Value Line's Samuel Eisenstadt
Squeezing science into investing.

YOU'D THINK THAT after three decades as a successful stock picker, Samuel Eisenstadt would have complete faith in his own system. Not quite. At age 76, the research chairman for Value Line, Inc.—and the coinventor of what may be the most famous stock-picking system in the world, the Value Line timeliness ranking—still has doubts.

These days Eisenstadt is skeptical of the high ratings the system gives to Internet-related stocks like Yahoo and America Online. AOL was up about sevenfold last year and trades at 270 times trailing earnings. "I wouldn't buy it," Eisenstadt admits. But the Value Line rating system doesn't have any gut instincts, and it doesn't care that a stock's price/earnings ratio is higher than the market's. Rather, the system picks up on AOL's accelerating net income and share price, and the fact that the stock's P/E, however high, is not out of line with its growth rate.

Do you trust the man or his machine? Go with the machine, urges Eisenstadt. "I'm right once in a while. But over time the system will beat me," he says.

Subscribers to the *Value Line Investment Survey*, one of six newsletters on the 1999 Forbes/Hulbert Investment Letter Honor Roll *(see story, p. 112)*, know Eisenstadt's work. Since 1980 Value Line's suggested portfolio has gained an average of 17.9% per year after trading costs, compared with 16.4% for the Wilshire 5000 index, according to the *Hulbert Financial Digest*. We don't have an independent evaluation of the *Value Line* system prior to 1980, but *Value Line* says that someone who hypothetically owned just the top-rated stocks for 32 years to 1997 would have made 20.8% annually before allowing for trading costs.

Eisenstadt, the son of an immigrant Brooklyn cabinetmaker, had little in his background to recommend a financial career. His only formal training was a statistics program at the City University of New York, where he earned a degree in 1943. After Army service as an artilleryman in France in World War II, he returned home and found a $2,000-a-year part-time job as a proofreader for *Value Line*.

Value Line's founder, Arnold Bernhard, had been searching for a scientific approach to picking stocks. With Eisenstadt's help, Bernhard tried, with only some success, to come up with formulas to explain the price movements of individual stocks. In 1965 Eisenstadt proposed a different approach: Compare stocks to each other, in an effort to predict which ones are most likely to outperform over the next 6 to 12 months. It was a breakthrough.

While the exact formulas are a secret, *Value Line* has told its subscribers a lot about what factors will put a stock high on the timeliness scale. The Eisenstadt formula relies heavily on momentum. The theory is that companies whose earnings and stock prices have risen the most lately will continue to do best for a while longer. Accelerating earnings gains and volatility also figure in, as do positive earnings surprises (reported earnings above analyst expectations).

Momentum is an old game on Wall Street, but Eisenstadt is rare if not unique in reducing the approach to a rigid formula. "Our objective was to squeeze as much science into investing as we could, even if it's a small advantage," recalls Eisenstadt.

That small advantage compounds over time, and it has helped puncture the theories of a generation of "random walk" fans who said that the stock market is too efficient to be beaten. The small statistical advantage also translates into a large advantage for *Value Line* in selling its data-packed weekly stock reports. *Value Line* gets $570 a year for its service, which covers 1,700 companies.

The statistical advantage has not translated into any great wealth for Eisenstadt, who owns no shares in the company he helped build and was paid a modest $215,000 last year. (He lives with his wife in a condo in Little Neck, N.Y.) But the statistics have made a lot of money for *Value Line*'s subscribers over the years, and they made Bernhard wealthy.

At his death in 1987, control of the company passed to his daughter, Jean Bernhard Buttner. She holds a stake now worth $320 million. ■

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Playing the Latin rebound

The economies of Latin American countries have been hit hard, the stocks harde and the closed-end funds harder still. Good buys are buried in the rubble.

By Kerry A. Dolan

LATIN AMERICAN MARKETS can tempt you and then break your heart. Valuations are cheap, courtesy of last summer's upheavals; many governments and companies are finally instituting positive reform. But then, along comes another Carlos Andrés Pérez. The former Venezuelan president (1974-79, 1988-93) headed an administration that was unusually corrupt, even by Venezuelan standards, and was impeached and convicted of misusing public funds. In November he sprang himself from house arrest by winning election to the senate and thereby getting congressional immunity.

Richard Watt, 40, who manages four Latin closed-end funds with $350 million in total assets for Credit Suisse Asset Management (formerly BEA Associates), can only sigh when the Pérez story comes up. Last year was a rough one. Russia's default freaked investors. Asia's depression undermined prices for commodities, including copper, grains and oil, all crucial Latin American exports. The net asset value for Watt's funds each declined between 25% and 41%. As market discounts from asset value widened, Watt's shareholders fared even worse than that.

Their loss is your opportunity. Since bottoming in mid-September, Latin American bourses have rallied by 38%. Despite that rebound, equities are reasonably priced. In Watt's Latin America Equity fund, for example, you are getting shares of YPF, an integrated oil company in Argentina that trades at 6.5 times estimated cash flow (in the sense of expected 1998 earnings plus depreciation). The comparable ratio for Exxon is about twice that. Buy the fund and you are buying YPF even cheaper since the fund trades on the New York Stock Exchange at a 29% discount to net asset value.

NICK CARDILLICCHIO

Credit Suisse fund manager Richard Watt
Choose well—you'll find bargains.

Venezuela may be on the wrong track, but across the region conditions are improving. Inflation has been chopped to single digits; productivity has increased as a host of formerly state-run companies have been privatized; fiscal deficits are small enough to qualify many Latin American countries (notably excepting Brazil) to join Europe's Maastricht Treaty.

Watt expects GDP for the region, on average, to expand by 0.5% t year, less than the 2% or so grow expected from the U.S. econon With a well-diversified portfolio, y can withstand disasters afflicti single stocks or even whole countri And you do get disasters. One of t worst performers, Venezuelan pap company Venepal, was down 91% dollar terms last year.

A handful of companies south the border show strong profi growth and balance sheets—esp cially compared with emergi Asia—and have adopted the tou U.S. standards for accounting a disclosure. Telecomunicacões de S Paulo serves a market of 34 millic people in the state of São Paul which, if it were a nation, would l the richest in Latin America in ter of GDP per capita. Yet only 37% homes and 68% of businesses the have phones. Watt estimates t company could easily double in si in five years. Yet it is genuine cheap. Its enterprise valuation (de plus market value of common) only 3.8 times operating incon (defined as earnings before deprec ation, interest and taxes). The con parable ratio for BellSouth is 9.4.

Chile's Chilectra, the electric util ty, has its Chilean tariffs set for tw more years and is improving efficie cy at its Peruvian, Argentinea Colombian and Brazilian subsidiarie Mexico's largest retailer, Cifra, cor trolled by Wal-Mart since Septemb 1997, is debt-free and has $600 mi lion in cash. The stock slipped near 50% last year in dollar terms.

All things being equal, you want t buy a closed-end fund that trades at wide discount and operates with lo overhead. The table of Latin fund highlights these two virtues by listin several trading at discounts at least 1 times their expense ratios. ■

Latin America at a discount

Fund	12-month total return (est)	Discount to NAV	Annual expenses per $100
Argentina	–19.5%	–26.0%	$1.71
Brazil	–28.3	–26.8	1.46
Chile	–24.5	–28.0	1.50
Latin America Equity	–40.9	–28.5	1.65
Latin America Inv	–33.4	–27.6	1.68

Figures through 12/31/98. Source: Lipper Inc.

Regional turmoil last year brought terrible returns for these funds; now the discounts are enticing.

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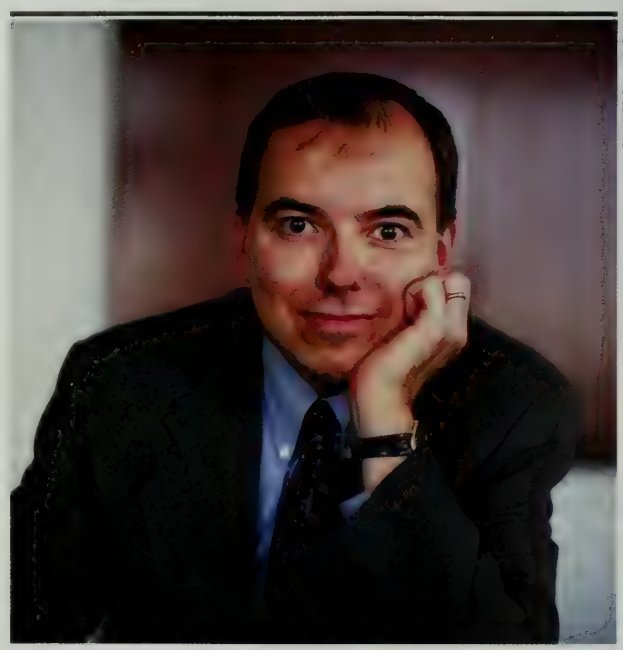
That's why they call it junk

The default rate on high-yield bonds could double this year. In some sectors—steel, energy, paper, telecom—things could get very ugly.

By John Gorham

JUNK IS CALLING, and plenty of folks are answering. Investors put $4.7 billion into junk bond funds in November, drawn by yields twice as high as those of comparable-maturity Treasurys. The money is still coming in. TrimTabs.com Investment Research says an additional $1.1 billion flowed into junk bond funds in December.

Is it possible some of these investors have forgotten that there is a reason for the yield premium on junk bonds? That in time of trouble they could suffer principal losses? "Yields are tempting, but some sectors are just risky," says Mark Vaselkiv, 40, manager of the T. Rowe Price High Yield Fund. "Defaults are coming."



ANNE KATRINE SENSTAD

T. Rowe Price's high-yield manager, Mark Vaselkiv
"Defaults are coming," so he's pulled in his horns.

The weakness isn't hard to spot. Look first at cyclical sectors like steel, energy and paper goods. Even before any recession arrives, crashing commodity prices have hurt a slew of companies. Gulf States Steel's 13½% bonds yield 65% to maturity, marking the company as a better-than-even-odds default candidate.

Oil's collapse is straining some second-tier firms, such as Benton Oil & Gas Co., whose 9¾% senior notes yield about 23%, and TransAmerican Refining Corp., whose 13% zero coupon bonds yield up to 60%.

Investors also lose when the value of a bond erodes, even if the issuer can stave off default. Consider Gaylord Container, which makes the cardboard for cardboard boxes. Gaylord issued a senior note last February with a 9¾% coupon. The note has sunk to a price of 86 cents on the dollar, yielding 12.1% to maturity. It could go lower. With the price of cardboard down 30% over the last three years, Gaylord's operating income (earnings before depreciation, interest and taxes) hasn't covered its interest expense for two years. To avoid default, Gaylord has been di ping into bank lines. In short, t extra 7.5 points of yield above Tre surys scarcely compensates you f the added risk.

It's not just commodity produce that deserve skepticism. Telecomm nications has attracted a flood of ca ital and seems destined for price wa Last year dozens of startups, fro tiny Covad Communications to gia Qwest Communications, raised $1 billion in proceeds by selling ze coupon bonds, which in most cas defer interest for five years to be pa upon final maturity. "These are cap tal hogs going again established competitors says Vaselkiv.

As recently as Septem ber junk was a bargai yielding an average eight points over Tre surys. But that spread h fallen even as default ris is expected to ris According to Donaldso Lufkin & Jenrette, th default rate for jun bonds in 1999 is expecte to be 2.5%, about twic what it was in 1998.

A surge of new issuanc last year means the defau rate will only be slightl above the 2.3% averag since 1977. But with s much defaulted pape expected, it's time to b very selective. Steven Rug giero, head of high-yiel research at Chase Manha tan's brokerage unit, say most investors should hav a junk portfolio invested a least 80% in bonds rated B or highe The Vanguard High-Yield Corporat Bond fund, yielding 8.5%, qualifies Dreyfus High-Yield Securities, yield ing 17.8%, doesn't. It has about 50 in issues rated lower than B.

T. Rowe's Vaselkiv started playing i safe in July, cutting B and lower-rate bonds down to half of assets. Now h has 88% of his portfolio in bonds rate B or better, and cyclical industrie make up just 10%. Proof of pudding Vaselkiv's fund returned 4.4% in 1998 compared with a slight loss for th average junk fund. ■

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Edited by Joshua Levine

OUTDOORS

If you are inspired to catch your own dinner, perhaps you can build the boat, too.

The Noah fantasy

By Jessica Maxwell

A buzz saw whines sharply in the corner where three woodworkers are cutting a plywood prow. Sawdust rooster tails shower the resident springer spaniel and perfume the air of Gregory Tatman's workshop with the aroma of yellow cedar. Above the din of the machinery rise the somber notes of "Amazing Grace," played on a trumpet. Then—for the fifth time that morning—the phone interrupts Tatman's music lesson.

"Tatman Wooden Boats," Tatman answers patiently. "Oh, a couple of months, if you're working alone on weekends. Three days if you drink a lot of espresso."

Between trumpet-playing sessions Tatman builds and sells boat kits. Finished boats, too, but mostly kits, designed to satisfy the common male fantasy of building one's own boat. Not just any boat. Tatmans are genuine McKenzie River driftboats, handsome high-prowed vessels whose parts are cut by hand in a three-room shop a quarter-mile from their namesake river in the rural mill town of Springfield, Ore. This is the best place in the world to build a fishing boat—the trout are right there, and so are the fir and cedar forests that will feed your boat shop.

"The development of the driftboat is unique in wooden-boat history," Tatman explains. Traditionally, he says, a new boat design comes from the drawing board of a boat designer. The curved surfaces of, say, a sailboat, need to be drawn in three views around a baseline, much like a house plan. The boat can then be reproduced in three dimensions off this baseline, called a "strong back." The ribs and keel are then precisely positioned on the strong back, a tedious and time-consumin process.

Enter a local mill worker, circ 1948—the mythical inventor of th McKenzie River driftboat. He's n boat designer, but he's handy with crosscut saw and needs a boat to flo the McKenzie because all the goo trout spots on the banks are taken.

The boat must be sturdy, with a fla wide bottom to handle rocks an rapids, and it must be easy to build Out of these requirements, the mythi cal mill worker fashions the firs McKenzie driftboat, pretty muc designing it as he goes along, cuttin

No one knows who invented the McKenzie River driftboat. We do know this, however: He was mighty handy with a crosscut saw. When he isn't practicing the trumpet, Gregory Tatman makes driftboat kits that keep this glorious tradition afloat.

PHOTOGRAPHS BY ERIC MILLETTE

panels out of plywood.

Tatman simply followed in that man's footsteps. To this day, the most popular driftboat is a 16-footer, made from double-length sheets of plywood. (Your local lumberyard stocks only 4-by-8-foot plywood, but if you lived in the Pacific Northwest, near the mills, you could get your hands on 16-foot-long plywood.) The boat is only 4 feet wide because that is how wide plywood is.

"Plywood bends evenly," Tatman adds. "So our fisherman could design and build his boat at the same time."

If he wanted to make more than one boat, he just transferred critical dimensions to another sheet of plywood, which served as a pattern to build the frames. Over the years these driftboat "pattern jigs" accumulated in the attics and garages of local fishermen, never making it to paper and never needing to.

No one really knows who invented the first McKenzie driftboat, though a number of locals have laid claim to it. Generally the credit goes to a Springfield fly fisherman named Woodie Hindman, who reigned in the 1940s. It was the heyday of the McKenzie, a great, even-flowing, year-round river. Serious anglers came from all over to fish for its famed redside rainbow trout and steelhead, an oceangoing rainbow that can weigh up to 20 pounds.

Herbert Hoover used to fish the McKenzie out of driftboats in Hindman's day. Several decades later Nixon's former attorney general, Elliot Richardson, fished it with a guide. "The boat sank in Martin's Rapids," Tatman recalls. "But it wasn't one of mine."

A few years later, in 1983, Tatman opened his driftboat-kit business. The company now offers a dozen of Tatman's designs: rowboats, prams (especially suited for small lakes and ponds), Jon boats (long and narrow, great for waterfowl hunting and bass fishing) and five driftboat designs.

Tatman's driftboats are configured to take a small outboard motor, allowing them to serve as a river and lake boat in one. So far, more than 1,300 kits have been shipped all over the world—as far as New Zealand and South America, including 4 to the Paloma Lodge, the famous Patagonia fly-fishing retreat.

Customers receive an intimidating shipment of parts. For a 17-foot driftboat, it includes 9 ribs made of Port Orford, Ore. cedar, 2 sides and a bottom made from quarter- and half-inch marine plywood, 4 hand rails and 2 chines (lower framing pieces) made of white oak from Michigan, a fly-casting deck, front and rear seats, a 10-piece Douglas fir floorboard set, a transom (the square stern) and stem (the pointed front end), 1,100 zinc-plated wood screws and a 50-page instruction manual—weighing 500 pounds in all, including packaging. You order the epoxy glue, the varnish ($84 a gallon) and various paraphernalia like anchors and seat cushions separately.

Do you have the stamina? "The boats take about 120 hours to build," says Tatman, "so if you work straight through, it is possible to have a boat in about a week. Just don't ask me to ride in it."

Including all the fixings and typical shipping costs, a boat kit costs from $1,200 to $2,000; a trailer adds around $1,300. Phone orders include free trumpet solo. Contact: Tatman Wooden Boats, 541-746-5287, www.gregboats.com. ■

LIFE STYLE

In the 1920s the male fashion capital was not Milan, it was Princeton.

Boola, boola!

By G. Bruce Boyer

In 1934 *Esquire* magazine listed the ten most prominent "birthplaces of style" for men. Milan didn't make the list, but both Yale and Princeton did.

From the 1930s through the 1960s, men's magazines regularly scouted campuses for the latest styles that would find their way to the country club and the chic resort. After years of aping their English betters, American men finally had a look of their own—

UPI/CORBIS-BETTMANN

the "Ivy League look," it was called.

Guess what? The Ivy League look is back—reintroduced by Europeans who have warmed to the American instincts this extremely wearable style reflects. In France they call it *le style preppy*. In Italy, it's *lo stile college*. After years of selling us one fashion trend after another—from Milanese power looks to caricatured versions of British lords—the Europeans are giving us back our homegrown classic wardrobe.

It's no coincidence that Brooks Brothers, the name traditionally linked with the Ivy League look, has freshened itself up after a decade and more of stagnation and confusion. Nor that Italian manufacturers like Kiton and St. Andrews have been deserting oversized sleekness and sludge-colored crepey fabrics for lightweight flannels, cashmeres and tweeds. The French mimic preppy with a vengeance—the Ivy-covered Façonnable store in Paris looks indistinguishable from the Polo Ralph Lauren shop across the street.

Everything about the look is unstarchy, which is probably why it's enjoying a comeback now after menswear has gone through several decades of overengineering.

Three-button sack suits are cut purposefully nonchalant, without darts and with little padding and interlinings. The jacket has a smaller, shirtsleeve shoulder, straight lines and soft chest construction. The trousers are narrower and present a trimmer, uncluttered look.

This understated ensemble is enlivened by bright colors and more tactile fabrics: Pink and yellow oxford cloth shirts, Shetland tweeds in plaids and windowpanes, pastel cashmere socks, brightly striped ties.

The movement toward this peculiarly American genre has been building for some time. If the 1980s were the age of the big-shouldered power look in tailored clothing, the 1990s have moved men toward a more casual, sophisticated elegance. It has been in fact a casual revolution that emphasizes comfort, color and texture over the muscular silhouettes and earth-toned fabrics that Italian designers like Armani brought us 15 years ago. It's nice that in this fashion revolution, America fired the first shot. ■

Great moments in Ivy fashion history

- **1896:** John Brooks (president of Brooks Brothers), vacationing in England, discovers button-down shirt worn by polo players to keep collar points from flapping in their faces. Brooks still refers to button-down as "polo" collar.
- **1914:** Suit manufacturers begin to advertise "natural, easy" styling. Suits become youth-oriented and slim, with natural shoulders, soft chest, patch pockets and center vent. Trousers are slim and unpleated.
- **1924:** Ivy Leaguers vacationing in England discover Oxford students wearing striped neckwear, argyle socks, tweed jackets, flannel trousers and Fair Isle sweaters.
- **1928:** National survey shows Harris Tweed most popular fabric on campus. Blue blazers with brass buttons seen on club men at Princeton.
- **1934:** White buckskin shoes with red rubber soles and heels are seen on campuses, followed the next year by Norwegian-style slip-ons (called Weejuns).
- **1949:** Walking shorts first seen in significant numbers; Bermuda-length madras shorts follow soon after.
- **1955:** Publication of Sloan Wilson's *The Man in The Gray Flannel Suit* immortalizes collegiate Madison Avenue uniform.
- **1998:** *Vogue* magazine declares in fashion editorial that khakis, traditional Ivy League trousers for half a century and more, are poised to "swing, rock, and groove the world." –G.B.B.

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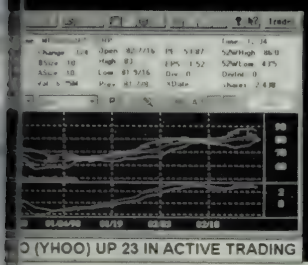

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houghts on the business of life

Those jumping on (President) Carter for recognizing that China is China have to be emotionally or politically motivated, because there is no sound ground on which to base their assault. It took us 25 years after the Czar's overthrow to establish formal relations with the U.S.S.R., and it has taken almost 30 years to face up to the fact that Taiwan is not China and that China and its 900 million citizens—a quarter of the world's people—won't go away if we continue to pretend they don't exist. –MALCOLM FORBES

The easiest kind of relationship for me is with ten thousand people. The hardest is with one.
JOAN BAEZ

Life is something that happens to you while you're making other plans.
MARGARET MILLAR

The United States is like a gigantic boiler. Once the fire is lit under it, there is no limit to the power it can generate.
WINSTON CHURCHILL

An actor can remember his briefest notice well into senescence and long after he has forgotten his phone number and where he lives.
JEAN KERR

Love is a gift; friendship is an exchange.
WILMA ASKINAS

The human heart is like a ship on a stormy sea driven about by winds blowing from all four corners of heaven.
MARTIN LUTHER

A child should never have to wonder if his parents love him.
DAVE WEINBAUM

The healthy stomach is nothing if not conservative. Few radicals have good digestion.
SAMUEL BUTLER

There are three things I always forget: names, faces, and the third I can't remember.
ITALO SVEVO

It is the function of art to renew our perception. What we are familiar with we cease to see. The writer shakes up a familiar scene, and, as if by magic, we see a new meaning in it.
ANAÏS NIN

Our duty is to be useful, not according to our desires but according to our powers.
HENRI F. AMIEL

The burning conviction that we have a holy duty toward others is often a way of attaching our drowning selves to a passing raft.
ERIC HOFFER

The emotions may be endless. The more we express them, the more we may have to express.
G.K. CHESTERTON

The main dangers in this life are the people who want to change everything—or nothing.
LADY NANCY ASTOR

It's so beautifully arranged on a plate—you know someone's fingers have been all over it.
JULIA CHILD

Ideas are like children; your own are always wonderful.
ANONYMOUS

A Text . . .

Wisdom is better than rubies; and all the things that may be desired are not to be compared to it.
–PROVERBS 8:11

Sent in by John J. Giba, Jupiter, Fla. What's your favorite text? *Forbes Book of Quotations: Thoughts on the Business of Life* is given to senders of Bible texts used.

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Jack Brennan,
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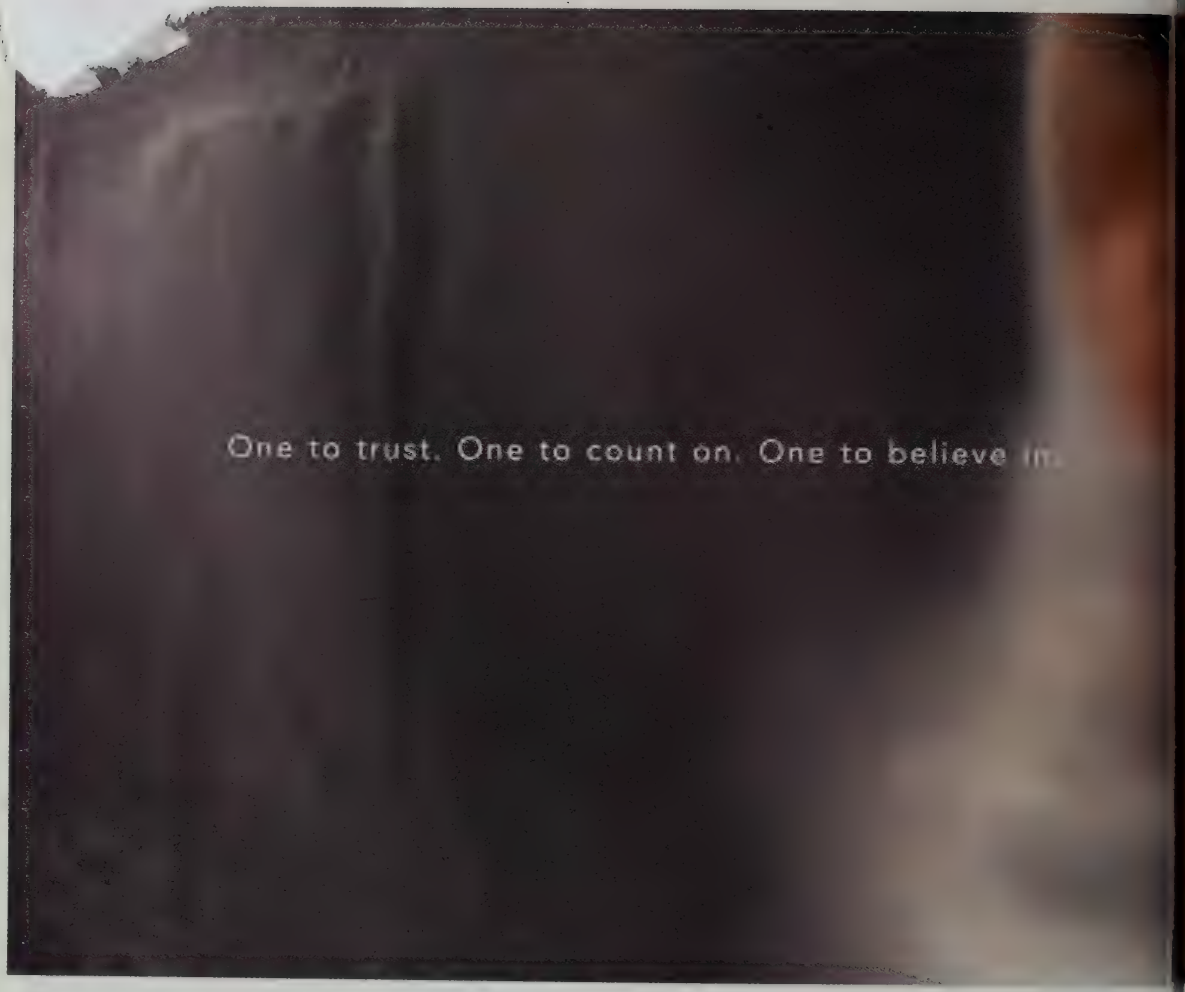
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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	AMGEN INCOME AND GROWTH	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SSMIX	[illegible] INC FUNDING	3,371.187	$94,947.69	28.09
AMAT	[illegible]	[illegible]	[illegible]	[illegible]
ADM	ARCHER DANIELS MIDLAND CO	2,097.1200	$33,941.04	16.1876
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
GE	[illegible]	[illegible]	[illegible]	[illegible]
HD	[illegible]	[illegible]	[illegible]	[illegible]
INTC	[illegible]	[illegible]	[illegible]	[illegible]
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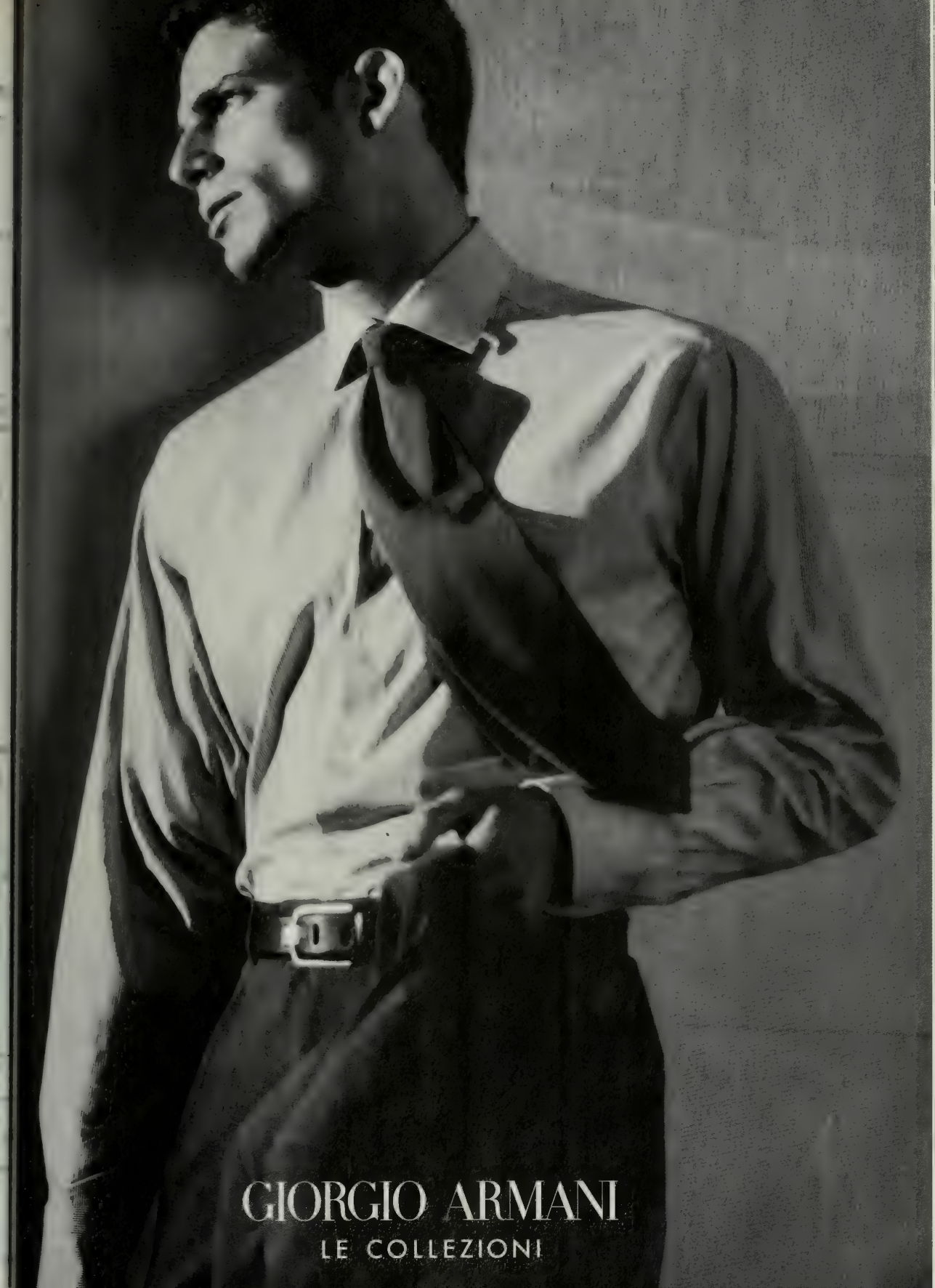
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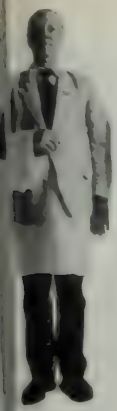

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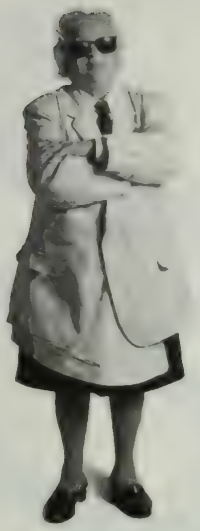

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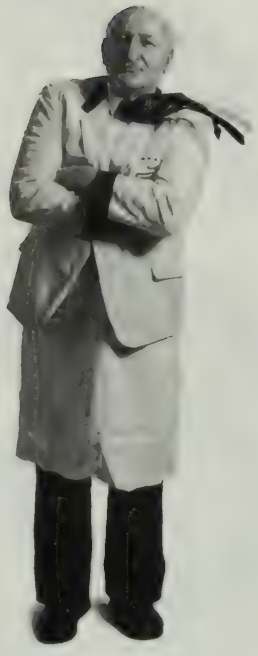

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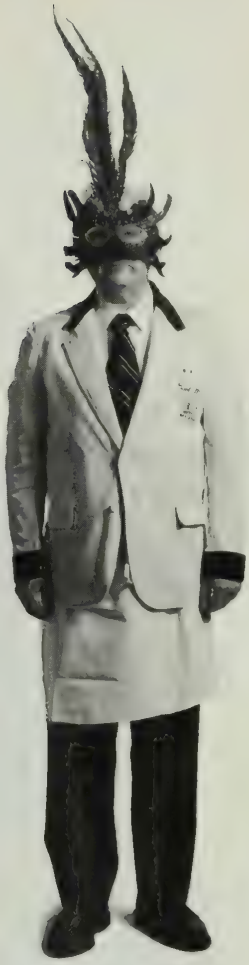
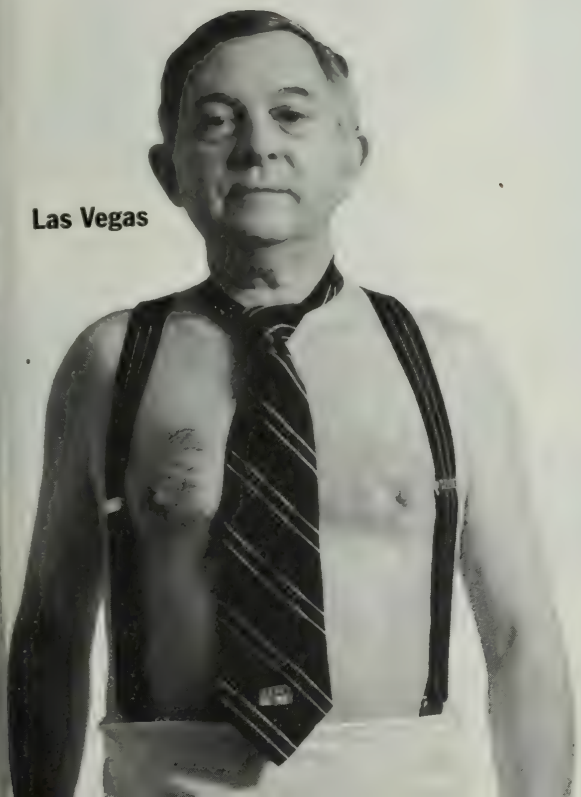


New Orleans

Las Vegas



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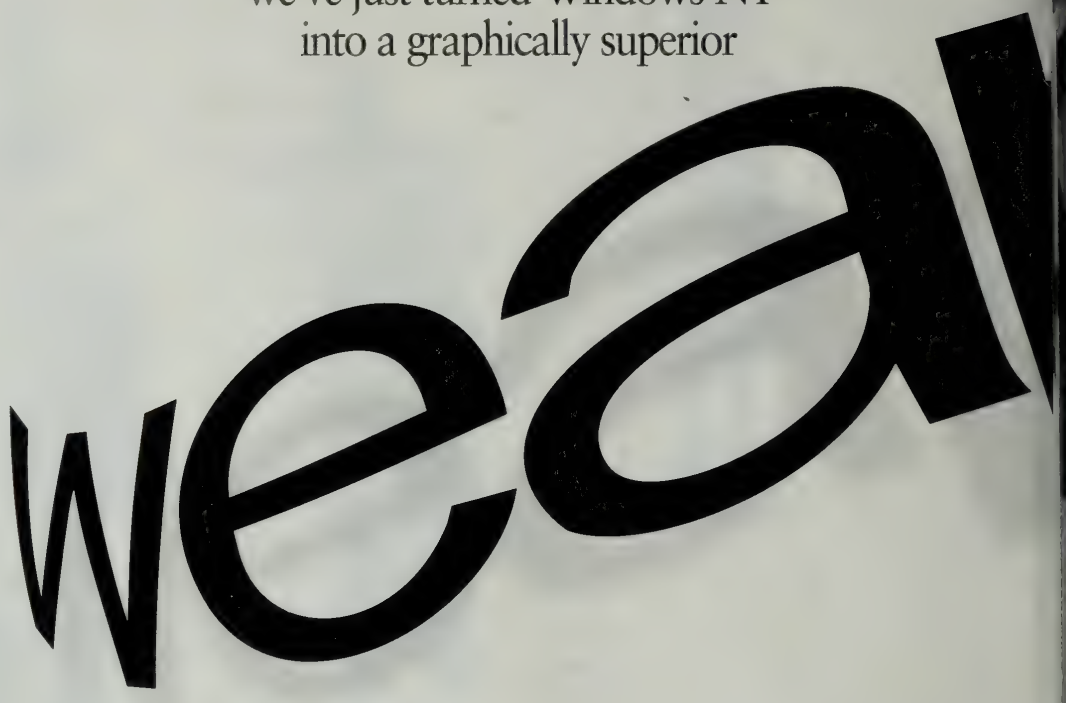

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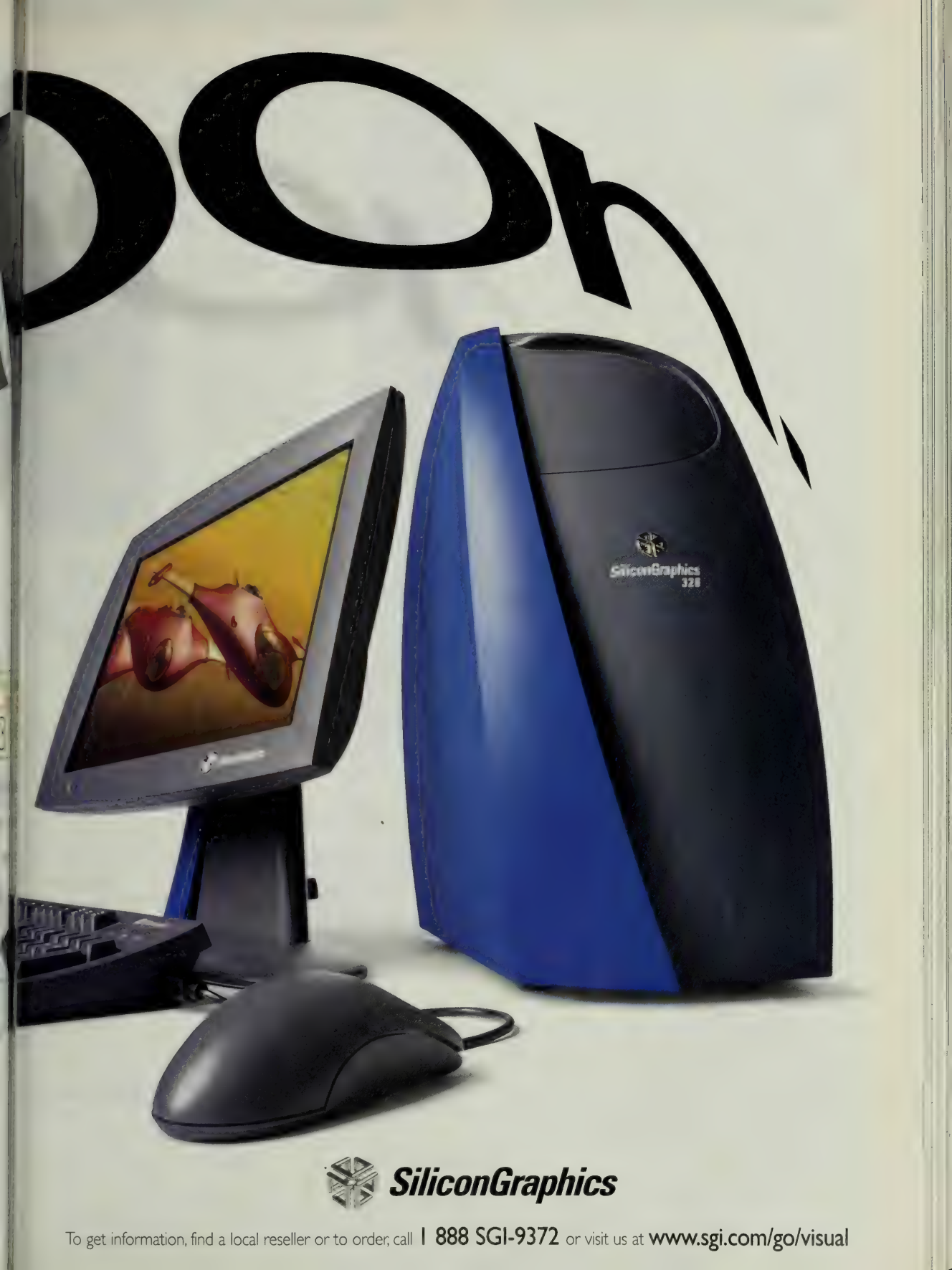

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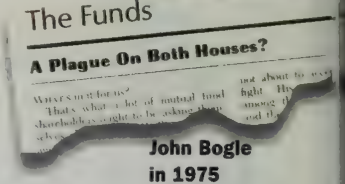
The vindication of John Bogle

WITH THE BENEFIT OF HINDSIGHT, we shouldn't have published that snide article about Vanguard Group.

It appeared in the May 1, 1975 FORBES, not long after John Bogle had created Vanguard by splitting a fund administrative arm off from a money management company. What's in it for investors? we wanted to know. We pooh-poohed Bogle's claim that by reorganizing his fund business he could save investors money—all of $431,000 a year.

Days later FORBES got a six-page letter from Bogle, critiquing every word in the story and every point of logic. Then we got another letter critiquing the way we had shortened the first letter for our Readers Say page.

Don't tangle with John Bogle unless you are prepared for a fight. With messianic zeal he takes on regulators, journalists, competitors, other funds' supposedly independent directors that aren't—anybody who doesn't see the mutual fund business his way. The rest of the industry is put off by his lecturing, but they cannot dismiss him, not when he takes away their assets.


The Funds
A Plague On Both Houses?

John Bogle in 1975

Tim Ferguson, our West Coast editor, came up with the idea for the cover story after noticing that Vanguard, while smaller than Fidelity, was outselling it. In Tom Easton's story, which begins on page 114, you will get some new insights about what makes Vangua successful. You will also get an update on that cost number we pooh-poohed. Vanguard is saving investors $4 billion a year no

The end of print?

THE OTHER NIGHT I WAS WORRYING, at 3 a.m., about whether some new digital medium would put magazine editors out of a job. And then I read Stephen Manes' essay about electronic books. Now Manes likes gadgets as much as anybody, but he h a way of seeing the practical obstacles to their use. I'm not as worried as I was. The Manes column begins on page 106.

William Baldwin

Editor

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Follow through

Edited by Susan Adams

Bad REITs

Our Aug. 10 story on mortgage REITs warned that this brand of real estate investment trust was ripe for a crash. Mortgage REITs buy the riskiest types of debt, use leverage to do it, and are often rife with conflicts of interest.

Our timing proved spot-on. Over the next month the bond market convulsed and investors fled risky paper of the sort most mortgage REITs hold. As prices plummeted, margin calls went out to many highly leveraged REITs, and one, Criimi Mae, went bankrupt. The rest saw their stocks fall an average of 21% over August, and a total of 27% by year-end.

Is there a buying opportunity now? Bottom-fishers such as GE Capital have entered the market for high-risk mortgage debt. But smaller investors, who got hit badly last year, should be cautious of the REITs. "The structural problems are still just as severe. Anybody buying into these stocks is just doubling down," says Michael Kirby of Green Street Advisors, a REIT research firm that sounded an early alarm.

–Scott Woolley

Slaughtered

Making the cover of our Forbes 400 issue in 1997 may have jinxed Wendell Murphy, then number 148 on our list and owner of the nation's biggest hog producer. We estimated Murphy was worth $1 billion then—mostly from his two-thirds stake in privately held Murphy Family Farms of Rose Hill, N.C.

Last year overcapacity at the abattoir sent hog prices plummeting. Even with low feed-costs, Murphy's company lost some $110 million to $150 million in 1998. Moans Murphy: "It's made us realize we're mortal."

FLASHBACKS

Sixty years ago in Forb

February 1, 1

Although this writer urged calm over European situation when American new pers were playing up war scares, he could but conclude that Hitler's scheme to in Czechoslovakia contained dire peril to peace of Europe. Yet one American finar authority, just back from Europe, assures "No war in Europe impends. Nei Germany nor Italy is in a position, financi to wage major warfare. Chamberlain's pop reception in Germany on his peace mis provided an index to the real feelings of German population. He added that Japa being bled white by her far-flung mili operations and that Russia's rulers have t hands full with domestic troubl

B.C. For

Fifty years ago in Forb

February 15, 19

People might as well realize that \$4,000 house has passed into history, industry spokesmen. About the clos modern version is this \$8,9 factory-built pre-fab. It's FHA-approv takes about two hours to ere

These days they call it "manufactured housing and a fancy one will cost you \$100,000 and

Twenty years ago in Forbe

February 19, 19

Last year over a million couples called quits. Should present trends continu by 1990 the number of divorces may w reach 1.6 million. All this divorce activity h left family courts clogged with case Estimates are that over 50% of the ci cases heard in New York City are family l cases—divorce, separation and annulment and this figure does not include the cas that come into the family courts custody or support modificatio once couples are divorce

In 1990, 1.2 million couples divorced, and l year the number dropped to 1 millio

–Edited by Dolores Lataniot

Linda begged Steve to log off the Internet for a day.

"How about we see the world in person this afternoon?" she challenged.

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took them to places so unreal and so far out there, Steve thought,

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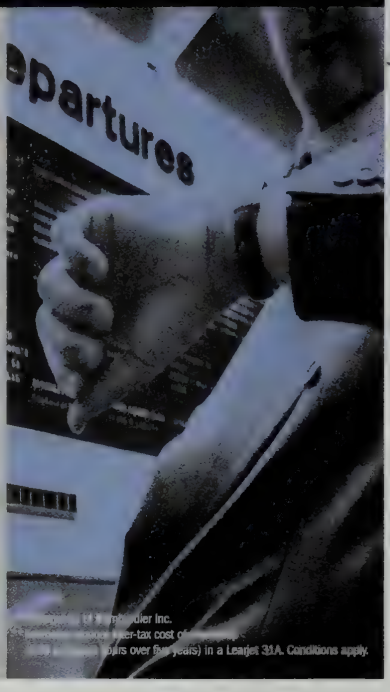

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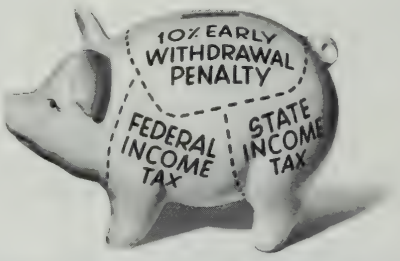

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Hog prices aren't expected to re break-even levels until next y Murphy fell to 226 on our rich list year, with an estimated net worth $850 million. That number will tainly fall in 1999.

–Brett Nel

Blowup

When we looked at stock mar darling Seattle FilmWorks two ye ago *(Jan. 13, 1997)*, the mail-or film developer was on a tear, post 25% earnings growth for six years i row. Our contrarian take: Stay av from the stock. The company spr its marketing expenses over three ye creating artificially high earnings.

Good call. The company recen announced it intends to write do $17 million of capitalized marketi expenses in 1999. That essentia wipes out the last two years of repo ed earnings. The stock has fallen fr $11 to $4.

Now we're taking another contra an view: Buy the stock. While t writeoff will depress this year's nu bers, the company has a solid co business and clever management.

–Scott Wooli

Cancer treatment

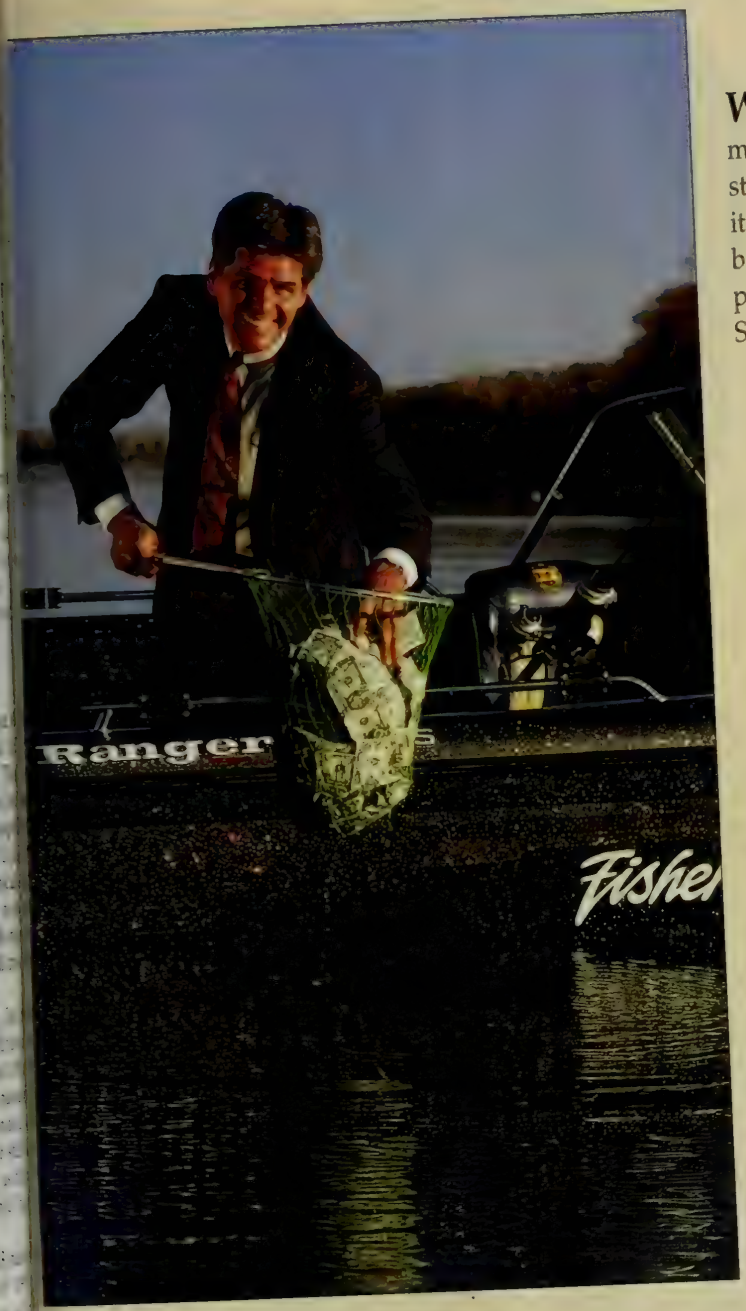
Three years ago we wrote about R uxan, a promising experimental dr for non-Hodgkin's lymphoma. This the cancer that killed Jacqueline On sis and last year killed 25,000 people the U.S. *(Nov. 20, 1995)*. Unli chemotherapy, which uses chemicals poison cancer cells, Rituxan's mon clonal antibody kills tumor cells mu as the body's own antibodies kill inva ing germs.

The results are heartening. In la 1997 the FDA approved Rituxa made by San Diego-based IDEC Pha maceuticals Corp. Half the patien in the original study responded the drug; of those, 28% are still remission, some for as long as thr years. About 12,000 people ha taken the drug.

Rituxan sales came to $103 millio in the first nine months of 199 which may make it the fastest-sellin new anticancer drug ever.

–Philip E. Ross ■

Net a profit. Keep a profit.



Wouldn't life be wonderful if making money was as easy as sticking out a net? In South Dakota, it's almost that simple. That's because we believe if you net a profit, you should keep that profit. Sounds pretty good, doesn't it?

Coincidence? We don't think so.

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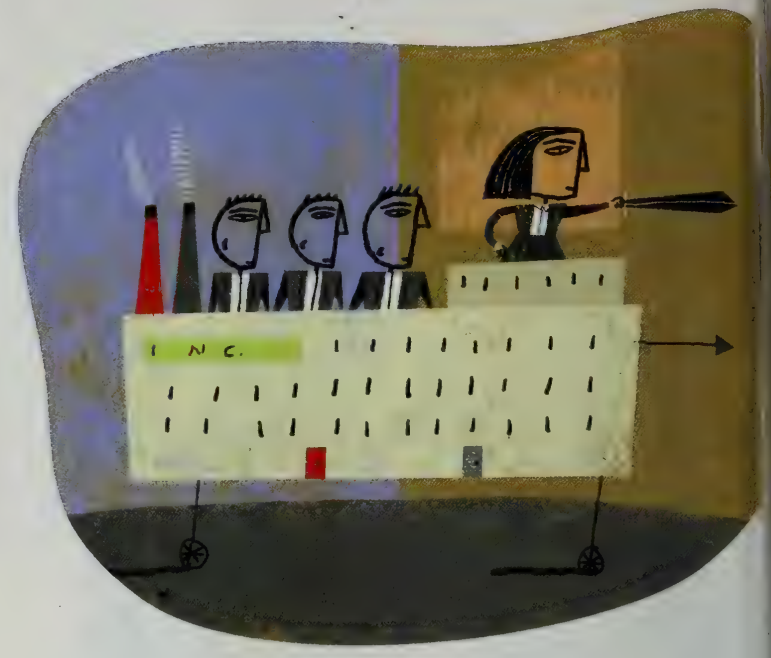
Women into battle

By Morgan Murphy

Joan of Arc led troops against the English—but ended up not being appreciated. Do top women executives today think they have an uphill battle? We talked to ten who run businesses in testosterone-charged industries, and thus manage mostly men. They explain what it takes.



"You can chase a little boy with a wooden spoon and an hour later he will be back under your apron."

Valerie Campbell, chairman, Campbell Corp.

Joanne Carthey
Chief Executive Officer
NetPro (computer networking)
Scottsdale, Ariz.
The natural role of a woman is that of a caregiver—the "natural" woman was a cavewoman who needed a male hunter. Even though I was always shooting the bull with the guys at my dad's gas stations and learned how to roll with the punches and the dirty jokes, I still sometimes have to struggle not to act like a "natural" woman.

When I had to recommend to my husband [the cofounder of the company] that he resign, I really had to struggle with my feelings. But the board charged me to do what is in the best interest of NetPro, and I did it. That would have been impossible had I not worked around men all my life and become tough.

Joan Rochford
Chief Executive Officer
Rochford Printers
Barrington, N.J.
I drive like a man—fast and aggressive—no distractions, please. I like that. Men are direct and quick. The fastest way to win their respe is to be like that. My gender has not held m back. The glass ceiling is an excuse that women use when they have reached the pinnacle of their career. My obstacles have been the ones I have created for myself.

Lara Stein
President
iXL (Internet services)
Atlanta, Ga.
Part of my approach to career advancement was ignorance. I grew up in South Africa during apartheid, and I believed that when I came to America everything would be equal. Once I started working in the U.S., my imm ture idealism soon came crashing down.

I have succeeded for two reasons: First, being a woman in corporate America wasn't that much of an anomaly since I was already minority, a foreigner and an outsider. Since I had more obstacles to overcome, I had more fighting spirit than the average woman.

Second, the new media industry is breakin all the rules right now, and it's easier for a woman to succeed.

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"It's only when I had my son 13 years ago that I started to fit in with women better."

Janet Skees, president, Skees Engineering

Annette Ganassi
Owner
Annette Ganassi Oldsmobile/Pontiac/GMC Truck
Pittsburgh, Pa.
I am one of the seven female GMC truck dealers. I intimidate men with my directness. GM once sent me a service representative who used to work for Pontiac. Knowing that Pontiac doesn't make diesel engines, I said: "So what do you know about a diesel engine?" He said: "I don't know a thing about a diesel engine." My response: "Ninety-nine percent of my trucks have diesel engines. I will teach you what you need to know, but if you make a mistake, don't lie to me. Just let me know."

Valerie Campbell
Chairman
Campbell Corp. (construction and engineering)
Flushing, N.Y.
With 600 men on the payroll, you would think I had learned how to manage the opposite sex by running five construction companies. But my understanding of men comes from being a mother: I have three sons and three daughters.

You can chase a little boy down the hall with a wooden spoon and an hour later he will be back under your apron. But you pull that with a little girl and she won't eat or sleep, or will talk to the school counselor about you.

Here at Campbell I can confront one of my men and an hour later he will either tell me I am right, or, "Mrs. C. you need to have your glasses checked." I do that with a woman and it sets off the whole coffee klatch.

Lynda Popwell
Division President
Eastman Chemical
Kingsport, Tenn.
The hardest part of being a woman in charge of a men's business was changing my own stereotype of myself. When I joined the work force 30 years ago most women were teachers. After studying chemistry, I joined a research lab at Eastman Chemical. I couldn't see myself in the male-dominated manufacturing plant.

It took me ten years of working in the lab to change my view of what I can accomplish and ask for a transfer to manufacturing.

Ellen Gleberman
Member, Board of Directors
Mitsubishi Motor Sales of America
Cypress, Calif.
When I started my career I felt uncomfortable as the only woman, so I set up special rules o behavior for myself so I would appear strong and tough. One was that I would never cry i the office. Another was that I wouldn't even have pictures of my family on my desk.

Men have told me that my behavior is intimidating; but as I've risen through the company, I've relaxed a bit. I feel more com fortable behaving more like myself now and don't even notice that I'm the only woman i a board meeting—except when the meeting breaks up, and I'm the only one who heads t the ladies' room.

Carroll Suggs
Chairman
Petroleum Helicopters, Inc.
Metairie, La.
I act like a lady and I view it as my strength. Some women are so focused on trampling ahead that they pretend they are like men. B you get less tired when you act like a lady. Y can stay very focused on your work because you don't concentrate on trying to pretend that you are who you aren't.

Martha Mertz
Owner
Mayhood/Mertz Realtors
Okemos, Mich.
Women have a hard time risking money—the basic risk you need to take in real estate. They squirrel money away. I'm unusual because I have the interest and willingness to take risks with my money.

I found out that I like risk and real estate while playing Monopoly as a kid with my dad, who bought and sold real estate as a sideline. I really got ruined playing Monopoly with him because I used to like the expensive properties So now for my business I don't buy expensive properties, but cheaper properties across from expensive malls, which appreciate in time.

Janet Skees
President
Skees Engineering
Louisville, Ky.
When you work in a field dominated by men, you sometimes feel you don't fit in well with women in a social setting. There's no common ground. They'd ask: "What do you do for a living?" and I'd say, "I'm a civil engineer." It's a conversation stopper because most women don't know this area. Only when I had my son 13 years ago did I start to fit in better. I could get closer to them by talking about our kids. ■

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Patrice Clarke Washington, UPS DC-8 Captain

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Bye-bye, brokers

Your article on on-line traders ("Amateur hour on Wall Street," *Jan. 25, p. 82*) was arrogant and disdainful. Of course these on-line trading "geniuses" may not be as competent as your average rapacious money manager. But then again, maybe they are: The majority of fund managers cannot beat the S&P 500. The "investment community" has been robbing the average investor for decades. Technology empowers. Please get out of the way.
–Donald W. McArthur
Sterling, Va.

DANIEL ADEL

Gamblers only talk about how much they win. But the lights, shows, glitz and the free alcohol are paid for by somebody. I will continue to try to make my fortune the old way: hard work and long-term investment.
–Greg R. Snyder
Fort Collins, Colo.

Thinking big

Your report on Clayton Christensen ("Danger: stealth attack," *Jan. 25, p. 88*) was everything a great article should be. He shows that even the mighty industrial Goliaths can fall to modern Davids, and—more importantly—how it happens. There is every reason to be optimistic about America's economic future as long as bright men like Christensen continue in their search for knowledge about knowledge.
–Timothy Kane
San Diego, Calif.

Below the belt

Sleazy and unethical negotiating tactics are nothing new. But after reading Keith Rosenbaum's comments about using personal information from his adversary's wife's divorce lawyer to "twist him a little bit" ("The negotiators," *Jan. 11, p. 22*), I felt the need to wash my hands.
–Thomas Overby
Vernon, N.J.

In praise of trust busters

Before you wrote an article denigrating the Mount Hood cable commission as a bunch of "shopkeepers and retirees" who want to force AT&T/TCI to invest in "pet political projects" ("AT&T gets a ransom note," *Jan. 25, p. 54*), you should have talked to a local TCI customer such as myself. U S West does not have a monopoly on Internet service over phone lines; why should AT&T/TCI have a monopoly on Internet service over cable lines? Your reporter got it backwards: The actions of the cable commission are pro-competition.
–Chris Shaver
Portland, Ore.

It's Greek to him

Entrepreneur Alex Lightman needs to brush up on his history ("Where are they now?" *Jan. 11, p. 104*). The quote he attributes to Aristotle—"Give me a place to stand and rest my lever on, and I can move the Earth"—belongs to Archimedes.
–C. Hank Rawlins
Houston, Tex.

Divine management

Even here in Silicon Valley, the seven-day workweek is a sure road to eventual disaster ("Let the fruit run down your chin," *Jan. 11, p. 270*). The biggest personnel problems high-tech companies face today are those of the seven-day-a-week worker who has become completely unproductive in the midst of a divorce or other personal problems. God made the Sabbath for a reason. It's an even more effective management tool today than it was 2,000 years ago.
–Gregory Slayton
Palo Alto, Calif.

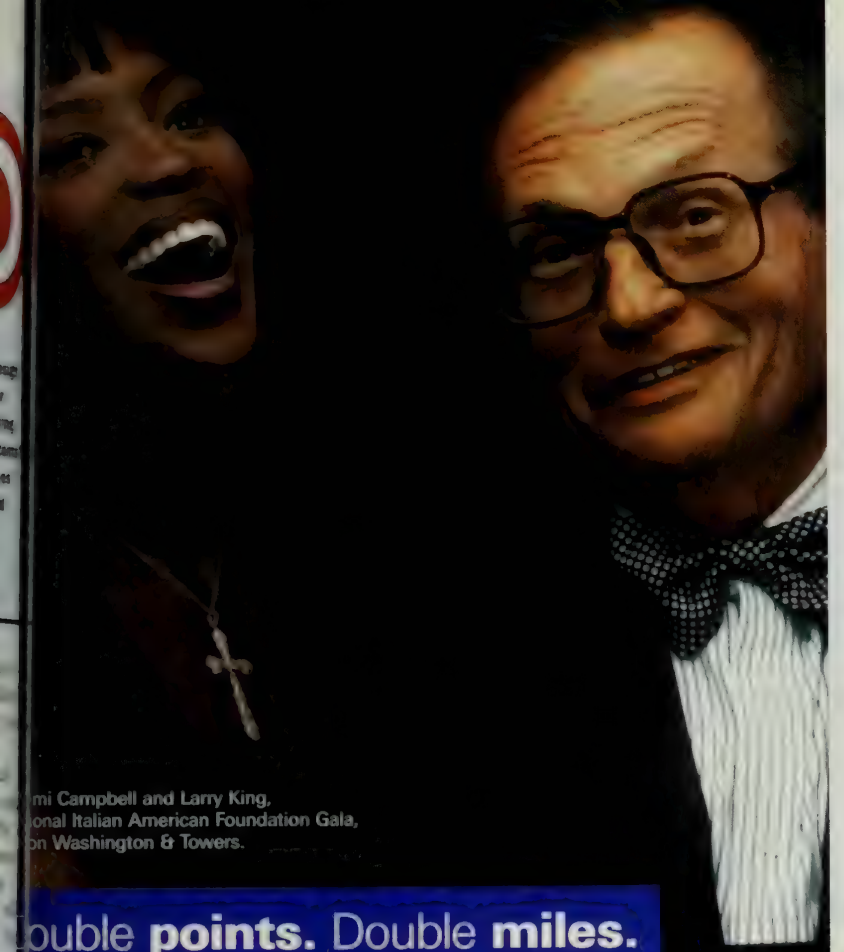
Not light speed, yet

I liked your perspective about hitching your business to the whirlwind developments of technology ("Digital rules," *Jan. 25, p. 43*). But you made one mistake. Amazon.com can sell books at an almost infinite rate of growth on the Internet, but it cannot deliver books at this speed. A bookseller will truly hitched to the Internet when it can transmit electronic versions of books and avoid shipping altogether. For now, Jeff Bezos has hitched Amazon to Federal Express and UPS.
–Eric Holmen
San Jose, Calif.

Ticked off over knockoffs

It is difficult to understand how Forbes can feel positive about Target's private-label knockoffs ("Mass with class," *Jan. 11, p. 50*), as well as Barry Kisselstein-Cord's efforts to protect his design ideas from being knocked off ("Crafty," *Jan. 11, p. 102*). If Target can afford to hire architect Michael Graves to design cookware and appliances, surely it can hire other designers to design merchandise instead of copying others. Ever hear of copyright law and design patents? If Kisselstein-Cord were to knock off one of Graves' popular kettle or watch designs, how happy would Graves be?
–RitaSue Siegel
New York, N.Y.

Letters should include the author address and phone number.



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–Henry David Thoreau

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Fact and Comment

Steve Forbes, *Editor-in-Chief*

AGGRESSIVE IGNORANCE

AZIL'S TROUBLES demonstrate that the world's eco- mic doctors really don't know what they are doing. The l of the real, Brazil's currency, was easily avoidable. The country's central bank could have kept the real steady ainst the dollar by buying up the currency so that supply uld match demand. It's simple economics; if supply ceeds demand, the price will fall. The central bank has out $45 billion worth of foreign reserves. It owns Brazil- government bonds. It has a remaining IMF credit line around $30 billion. It also has several billion dollars in edit with U.S. and other international commercial banks. All the central bank had to do was to employ these sources to buy up reals. The real would have stabilized, rticularly if the government had stated that its goal was to ep it tightly tied to the dollar. Instead, to the applause of e U.S. Treasury Department, the IMF and other advisers ith *Jurassic Park* mentalities, Brazil cobbled together a pro- am resembling a pretzel designed by someone on LSD. ather than straightforwardly absorbing excess reals, Brazil s jacked up interest rates, which will depress the economy. It is applying new taxes, which will also hurt growth. The regime has proposed needed spending cuts, but its timing is awful—there is not much political support for belt-tightening when people's standard of living is suffering.

In 1994-95 Mexico made the same pretzel-like mistakes Brazil is making now. Instead of buying up pesos, Mexico let its money go into a freefall. Then it begged the U.S. for funds to pay off speculators who had bought high-interest-paying Mexican debt on the assumption that the peso would stay steady against the greenback. The Clinton Administration offered $20 billion—an amount that could have bought up every peso in existence. The peso's original value could have been preserved and the collapse averted.

Yet, incredibly, the Administration and the IMF are now telling Brazil *not* to try to "prop up" its currency, thereby inviting an Asian-Mexican-style free-fall. In effect, the Clinton/Gore team may turn Brazil's cold into life-threatening pneumonia.

And so continue the wrongheaded responses to and the misdiagnoses of this spreading crisis.

ARE THEY SERIOUS?

HE INTERNATIONAL MONETARY FUND is campaigning r increased powers that would let it intervene directly nations' economies before these countries even get nto serious trouble. The agency's num- er two official says, "The whole idea is revention."

Lord help us. The "whole idea" is sim- ar to putting Typhoid Mary in charge of n effort to prevent food poisoning. The MF *is* the problem. Its toxic prescriptions f devaluation and tax increases turn rou- ne economic adjustment into devastat- ng disasters. For three decades the Pacif- Rim was a vibrant, expanding region. oday it is a smoldering ruin, thanks in o small part to IMF malpractice.

The agency still has no real under- standing of what makes an economy tick, as the Brazilian crisis demonstrates. For example, it tells countries to balance their budgets—a fine sentiment, but *how* you balance a budget is critical. Hiking taxes hurts economic growth, but like physicians who once bled their patients, the IMF's economic doctors regularly prescribe ever-heavier exactions. (By the way, the budgets of most of the Pacific Rim states were in balance when Asia's economic flu first hit 18 months ago.)

Stanley Fischer: IMF's number two tries to float a lead balloon of an idea.

Sound money, low taxes, the rule of law, minimal government interference and open trade are core principles of economic progress. Such principles are still alien to the IMF, which is why it remains a global menace.

PYTHON POLICIES

HEADLINES TO THE CONTRARY, the dollar is not really sink- ng. In fact, the Federal Reserve is still too restrictive in pro- viding credit to the economy. This will hurt, just as even a superb car will eventually sputter and stall if not provided enough fuel. That's why commodities prices have plunged across the board and why long-term interest rates of gov-

ernment debt virtually mirror short-term interest rates.

Like the Fed, European central banks have been overly tight, although the dollar has gone up a bit against the new euro. German prices are actually falling. Britain is heading into a recession.

The Bank of Japan has helped strangle economic growth in Japan by being even more stingy than central banks in other major countries.

True, Europe and Japan have significant systemic pr lems with taxes regulations. The U. facing a federal burden (as a percent of people's incor that will soon surp that at the height World War II. But the role of overly stingy central ba in hurting economies should not be overlooked.

Sinking in Buoyant Waters

Falling Dollar Is a Mystery in a Soaring U.S. Economy

—New York Times

PHONY DEFENSE

Don't be impressed by Presidential pledges to spend a few billion dollars more for antimissile defenses. The move is purely political, meant to rob the GOP of an issue in the 2000 elections.

Most Americans don't grasp the fact that we have no means to knock down an incoming rocket; we are completely vulnerable. North Korea is already testing a three-stage rocket and will soon have the means to hit Alaska and Hawaii. Iran is rapidly developing missile technology. In the not-too-distant future the ayatollahs will be able to reach western Europe, with the U.S. next.

But the Administration remains less than serious about moving ahead full-speed to protect us from incoming missiles. The President won't even make a decision to actually build or not, until at least 18 months from now. If a go-ahead is given, it will be for the most expensive, least developed and least effective approach—a ground-based missile defense. And there may be only two sites, rendering such a defense woefully inadequate. This way, the Administration can say it is still adhering to the 1972 Antiballistic Missile Treaty, which bars deploying nationwide missile defense shields.

AP/WIDE WORLD

Soviet Boss Brezhnev and President Nixon: We took the 1972 ABM Treaty seriously, but Moscow never did.

The ABM Treaty has severely restricted missile defense research and testing. The White House's adherence to a piece of paper that could do immense harm to our people and our allies is based not on logic but on obsolete arms-control thinking: If the Soviets attack us, we can retaliate and wipe them off the face of the earth. But today's world is different from 1972's. A number of nations will inevitably have the means to strike us with rockets. The blackmail possibilities are enormous. Do we risk losing hundreds of thousands Americans to Iraqi missiles if Saddam Hussein seizes Kuv again and says he will retaliate if we try another Gulf war

Washington's constricted interpretation of the AI Treaty has made experimenting and testing of missile defe shields extremely expensive. It has constrained research airborne and space-based lasers. And it has forced us "dumb down" the development of missile defense syste for our overseas troops and allies, called theater missile defenses.

The ABM Treaty should be trea as a dead letter, having been enter into with an entity that no lon exists. Moreover, the Soviets routi ly violated it, as do the Russians no If the other party no longer exists a its principal successor doesn't adh to the pact, why should we?

Within 40 months, at a cost around $3 billion, we could upgra the Navy's existing Aegis missile te nology to give us an effective, flo ing missile defense capability. V should then move on to fully develop a space-bas system. As arms expert Henry Cooper recently put it, ' is far simpler to shoot a missile down in space fro space vehicle than it is to shoot it down from t ground." He added, "The space technology that can used to build defenses is mature, and such defenses wo be simpler than the ones we are [now] developing."

Congress must not be lulled by Clinton's game-pla ing. It should pass legislation to force the government build reliable and sufficient missile defense systems soon as possible.

RESTAURANTS—GO, CONSIDER, STOP

Here is the distilled wisdom of brothers Bob, Kip and Tim, and other Forbes *eatery experts Tom Jones and Patrick Cooke.*

● **Peacock Alley**—Waldorf-Astoria Hotel, 301 Park Ave., at 50th St. (Tel.: 872-4895). A sure thing for those wanting to impress and be pampered. The food is ambitious and very good. Especially noteworthy: Parmentier soup; oven-baked cod with fresh figs and fennel; and rack of lamb. Desserts are scrumptious.

● **Michael Jordan's Steakhouse NYC**—Grand Central Station, 23 Vanderbilt Ave., at 42nd St. (Tel.: 655-2300). Few places in town can match the spectacular Grand Central Terminal. Has this celebrity venture resulted in a winning restaurant? Yes. Particularly good: smoked salm with brioche toast; and the filet mignon center cut.

● **Pacific East**—318 West 23rd St. (Tel.: 243-0777 Innovative and delicious fare in a sleek and stylish plac Try the iced yellowfin tuna tartare with coconut juice a Japanese horseradish, spiced tobiko and Idaho chip Indochine spiced wok-charred beef salad over green with satay flavors and fresh basil; and three-pepper roa duck with plum wine, huckleberry plum sauce, kaiwa sprouts and ginger scallion duck pancakes. ■

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Other Comments

Clueless

"WE ARE TAKING away some of the years of adolescence and childhood" from a generation, cautions Millburn, N.J. school principal Martin Burne in a recent feature in the *New York Times.* The unlikely culprit? Too much homework, which one Los Angeles psychologist says is sending kids to therapy in droves for "homework-related anxieties." Keep in mind that, according to the University of Michigan's Institute for Social Research, the average amount of time kids spend on homework is 25 minutes. Heaven forbid the children miss half of *Dawson's Creek.*
–*National Review*

Misguided

THE INTERNATIONAL Monetary Fund is spinning its potential to douse economic outbreaks before full-blown crises engulf countries or continents.

This type of policy could help governments avoid the consequences of bad policy and speculators the bitter loss of a risky investment, a phenomenon known as moral hazard which propagates self-indulgent, irresponsible behavior. But, says the Fund, these precautionary, crisis-averting loans wouldn't beget moral hazard since they would be doled out only to countries that employ good policies. Countries with not-so-good policies could get the loans if they promised to meet tough conditions.

Governments with good behavior don't need IMF loans. Investors on the lookout for handsome returns reward good-policy countries. If the Fund were to accept this reality, however, it would have to renounce its charter.
–*Washington Times*

Despite the portentous sound of the word impeachment, Bill Clinton is merely on the verge of being fired from his job. Washington, after all, is a place of work, and the people who work there—and who keep the place ticking—have to deal with Mr. Clinton on a level that poll-answering Americans beyond the Beltway don't.
–HOLMAN W. JENKINS JR.,
Wall Street Journal

Fact of Life

WHEN MY MOTHER didn't come back, I realized that any moment could be the last. Each walk should be taken as if it is the only thing you have left.

You can demand something like this of yourself as an unattainable ideal. After that, you have to remind yourself about it every time you're sloppy about something. For me that means 250 times a day.
–*Smilla's Sense of Snow,*
by PETER HØEG

Not Fooling Anyone

TWICE AT the beginning of 1998 the Butcher of Baghdad denied U.N. weapons inspectors access to buildings believed to house evidence of Iraq's efforts to develop and stockpile weapons of mass destruction. [illegible] Clinton administration huffed [illegible] puffed and threatened unilateral p[illegible] tive action to bring Saddam to he[illegible]

During each showdown the I[illegible] secured time and freedom to fur[illegible] conceal their weapons progra[illegible] Saddam's challenges brought h[illegible] the administration's lack of resolve [illegible] highlighted its confusion of policy a[illegible] regarding Iraq. As a senior Penta[illegible] official [said], "We need leadership [illegible] decides on a goal and works towa[illegible] relentlessly. Every time we flip-flop [illegible] back down we strengthen Saddam [illegible] convince our Arab friends and pot[illegible] tial allies in Iraq of our irresolution[illegible]
–JAMIE DETTMER, *Insight* magazi[illegible]

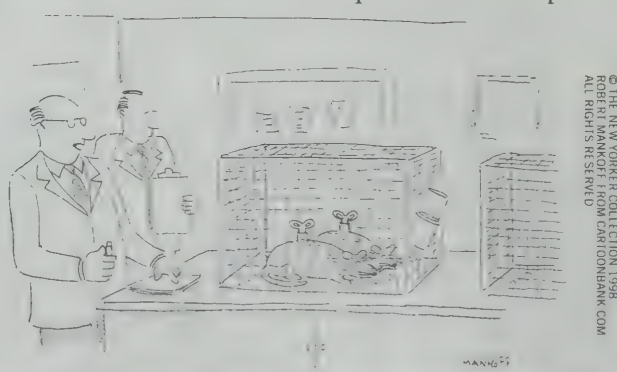
Nectar of the Gods

SINCE ITS INVENTION, the martini [illegible] been the preferred cocktail of pr[illegible] dents and heads-of-state. FDR e[illegible] carried a martini "kit" on inter[illegible] tional summits. Prize-winning w[illegible] ers have sung its praise, allow[illegible] themselves one (E.B. White) or s[illegible] eral (William Faulkner) for fortifi[illegible] tion when facing the empty page.

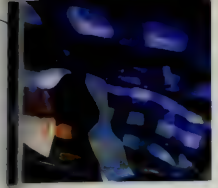
As the three-martini lunch co[illegible] back into favor, look for the w[illegible] manicured and metallic-polished f[illegible] gers of book publicists and fash[illegible] editors to be lifting their cock[illegible] glasses at the Four Seasons wh[illegible] they toast the new millennium.
–SALLY ANN BERK, *The Martini Bo*[illegible]

Cracking Up

THOUSANDS TURNED OUT [in Bomb[illegible] to celebrate World Laughter D[illegible] and shout "I am the happiest pers[illegible] in the world." Organisers now w[illegible] a laughing competition in t[illegible] Olympics and there are plans to [illegible] India's huge workforce to start ev[illegible] day with 20 minutes of deep brea[illegible] ing and laughter—but without a[illegible] need for jokes. It seems it's the an[illegible] dote for stress-related disorders su[illegible] as high blood pressure and heart d[illegible] ease. Might not have the desir[illegible] effect on the boss if there's too mu[illegible] of it in worktime.
–*Financial Times*



"The results are meaningless, but it gets the animal-rights people off our backs."



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Commentary

n events at home and abroad

Caspar W. Weinberger, *Chairman*

NEW PROMISES EVERY DAY

OR THOSE WHO ONLY READ HEADLINES or listen to 30-cond sound bites on television news, President Clinton ll appear as he wishes to appear—as a supporter of mis-e defense and strong defense budgets. To those willing read at least the first three paragraphs of any news ory, the truth will be, as is so often the case with Mr. linton, 180° from the headline blurb.

Let's look beyond the *New York Times* headline Clinton To Pledge $7 Billion For Missile Defense Sys-m" to see what is actually happening. The President is let it be known, well in advance of his budget sub-ission, that $7 billion may be spent over a six-year peri-d to build a limited missile defense system. We say *may* ecause no decision will be made until the year 2000. At at point, the *Times* tells us, Clinton will decide whether e threat justifies building a system by the year 2003.

There are several problems with this approach, includ-g its highly tentative nature. Mr. Clinton and the public ust know that a presidential leak or even a press release nnot bind either a future President or a future Congress. ertainly a presidential press release about setting aside 7 billion of a not-as-yet-approved total for a defense rogram, for possible use in the year 2003, is nonbind-g. It is a sham designed only to enable a beleaguered resident to claim that he is at last for missile defense.

Following this leak, Mr Clinton wavered over making ny reference to missile defense in his State of the Union essage, for fear of offending Russia. The Duma, after ur token December bombing of Iraq, stopped its years-ng debate on the START II Treaty. National Security dviser Samuel Berger recently stated that deployment f any defense system is unlikely because "we remain trongly committed to the 1972 Antiballistic Missile reaty, a cornerstone of our security."

It is not much of a cornerstone after North Korea's est firing of a three-stage missile over Japan last August. o demonstrate the idiocy of the ABM Treaty, ask your-elf this: Do you believe that if we agreed never to use as masks, our troops would never be attacked with gas?

With the planned leak about Clinton's $7 billion ledge virtually repudiated by Berger's renewed devo-ion to the ABM Treaty (which forbids any effective mis-ile defense), there is no Administration missile defense olicy. Does no one realize that the more we declare our allegiance to the ABM Treaty, the more we invite rogue nations, such as Iraq, Iran and North Korea, and others, such as Russia and China, to believe that in the future their best weapons will be those we have pledged never to defend ourselves against?

More of the Same

Making more news is a much-heralded presidential "Budget Increase For The Military," as the headlines refer to it. The $100 billion figure (or $110 billion, depending on which paper you read) that has been leaked is the total increase over a six-year period. It includes a $12 billion increase for the year 2000. Only $4 billion is an increase in actual spending—and amounts to less than a 2% increase after inflation. The other $8 billion is to come from "savings" in the defense budget resulting from lower-than-predicted inflation and fuel prices. Of course, no one can guarantee that inflation and fuel prices will remain constant over the next 18 months; if they do not, the $8 billion will never materialize. It is no comfort to realize that national security, severely weakened by Clinton's earlier policies, now has to rely upon government fiscal predictions instead of appropriated dollars. U.S. security requires something more solid than guesswork—or Mr. Clinton's word.

The best part of this leak is that about $2.5 billion is supposed to be used for much-needed pay increases and improved retirement benefits for the military. The worst part is that we will have to wait until 2002 before we can start the long-needed modernization and acquisition of weapons.

Where Do We Find $100 Billion?

The Balanced Budget Act of 1997 requires that any budget increase be offset by a reduction elsewhere. Mr. Clinton daily reports big new spending plans, but no reductions. If we are to believe previous headlines, Mr. Clinton will use a budget surplus only for saving Social Security. According to the *Washington Post*, all of these orchestrated leaks are designed to demonstrate that our impeached President "remains at work trying to implement popular policies."

This Administration is famous for leaking sham proposals. These daily sound bites should not be given any more credence than some other statements made by this President. ■

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IN PRAISE OF ANIMAL SPIRITS

OVER NEW YEAR'S, I found myself sweating out Christmas eggnog in a hotel hot tub with Alan Blinder, the former Fed vice-chairman and adviser to President Clinton. Like many economists, this brainy Princeton professor thinks economics is more science than sociology—i.e., it is reducible to numbers. Yet looking at those numbers, Blinder can't find the computer's and Internet's contributions to productivity. He's not alone. MIT's Paul Samuelson has declared computers can be found everywhere in the economy except in the productivity numbers. Stephen Roach of Morgan Stanley echoes this view.

Look at the Evidence

Productivity is on the march everywhere. American factories, many at death's door only a decade ago, have leaped back. From T shirts to trucks, we are the world's most efficient producers. Thank resource-planning software. On the marketing front, American brands have colonized the world. Credit satellite TV and the Internet for spreading the English language.

Keep going. American capital markets are far and away the most liquid and efficient in the world, despite a minuscule national savings rate and a tax policy that swerves between counterproductive and comical. For that, we can tip our hat to Wall Street's huge and ongoing investments in computers and high-band networks.

How about inflation? Computers and networks have killed it. Six years ago FORBES *ASAP* went out on a limb and said infotech would crush inflation. Our evidence was too slim to satisfy any economist, but in the real world, if you cared to look, it glowed like the noonday sun. One clue was the reengineering movement, which substituted technology for workers. The second was Wal-Mart. The discount chain discovered it could predict buying patterns down to every last store shelf, thanks to data gleaned daily from its checkout scanners. Down went Wal-Mart's inventory costs. Any rookie business writer could see this.

The logical next step wasn't hard to figure out, either. For any business forced to compete—that is, most—all such savings in inventory and headcount had to be passed on to consumers. Seeing this, FORBES *ASAP* reasoned that price wars would soon break out.

Thus would the stock market and venture capital also break loose in a glorious stampede. Equity markets hate inflation and love its absence—or, rather, stock investors loathe inflation. What idiot cares to pay taxes on inflated gains? But when the opposite condition exists, when inflation is low, equity—whether private or public—has no trouble finding buyers. Thus do new and disruptive technologies, like those of the Internet, get funded, further goosing the American economy. Sounds like a virtuous cycle: Technology leads to productivity, leads to low prices, leads to disinflation, leads to booming capital markets, leads to more funded technology. And round and round it goes. Only a trained economist could miss it.

Left to its own momentum—with a push now and then from farseeing policymakers—this cycle should go on. But there's another element at work that shouldn't be ignored.

The Secret Is Motivation

Economist John Maynard Keynes called this element "animal spirits." What an unsurpassed term!

Keynes has a bad reputation nowadays with most FORBES readers. Easy to understand. He is known chiefly for his 1930s advocacy of deficit spending to stimulate consumer demand. Every large-government power-grabber since FDR has invoked Keynes' name and bastardized his insights, including Richard Nixon ("We're all Keynesians now"). The truth is, Keynes attacked but never refuted Say's Law: Supply creates its own demand.

Keynes then went further. He suggested that "animal spirits"—a phrase he coined to describe the sentiment of investors and producers—are vital to economic health. Keynes never claimed scientific validity for this idea. He loved anecdotes. He observed that savings rates don't equate to investment. Unhappily, he was not so smart about the spirit-killing effects of high taxes and wealth redistribution. In time he might have learned. At least Keynes knew that the crucial question in economics is what motivates people to invest and produce.

Economics can never attain the surety of hard science. Economic agents are intractably human. The market is the great humiliator. The best economics can do is to state principles. Lesson for policymakers: Tax cuts never hurt the spirits of investors and producers. ■

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WE SEE THE BIG PICTURE

"...see a world in a grain of sand..."/Edited by Ben Pappas

...hat's what friends aren't for

...OS DONOVAN

GETTING READY for a big presentation? Do yourself a favor: don't invite anybody you know. So say psychologists Jennifer L. Butler of Wittenberg University and Roy F. Baumeister of Case Western Reserve University, whose recent study indicates performers generally fare worse in front of their fans.

CORBIS-BETTMANN

"We know people prefer supportive audiences," says Butler. "But there is no evidence to show any objective benefit of that support."

Butler doesn't deny the home-field advantage in pro sports: Since 1990 approximately 60% of games in the National Basketball Association and in the National Football League were won by home teams. But, hey—that's why they're pros. Don't expect it to work that way for you.

The problem with packing your audience with allies is that you care too much about disappointing them. That can produce a cautious performance. Butler became intrigued by the topic while studying how people act in front of friends. Most of us, she says, are more modest with friends than with strangers. She hypothesized: Wouldn't a modest performance ultimately be less effective?

During a series of tests Butler and Baumeister randomly assigned 150 subjects to take a math test or play videogames for cash rewards. In one videogame test, the subjects were divided into three groups: One played in front of a supportive audience, one before a neutral audience and one before an adversarial audience.

During the most difficult part of the test everyone who sat before a supportive audience failed. But 45% of those who faced a hostile audience passed.

What surprised Butler was the self-delusion of those who faced their friends: They were convinced they had performed much better than they had. "People are not aware of the debilitating effects of supportive audiences," she says. "They may opt for emotional comfort rather than objective success."

Butler says if you have to give a presentation to a mostly friendly audience, focus your attention on a stranger. If you've stacked the house, focus on the friend who is your harshest critic.

They spy

BIG BROTHER is here, and guess what? You may be working for him. Infrared tracking technology—the gizmo that lets "them" know where you are at all times—is showing up in the workplace.

BRIAN STAUFFER

"The staff wanted to know if they would be tracked into the bathroom."

Versus Technology introduced a system late last year that lets employers keep track of their workers' whereabouts. It deploys a series of sensors, each the size of a hockey puck, in office ceilings. They track infrared light pulses produced by personal I.D. tags. Workers' movements are then tracked on a Windows program, letting the boss tap in by laptop computer. The system costs as little as $30,000 to install. Versus, based in Traverse City, Mich., has installed approximately 200 systems and expects to double orders to $6.4 million this year.

While its implications are a little creepy, the technology hasn't sparked much outcry yet. Last year Versus teamed with Dukane Corp., a nurse-call outfit in St. Charles, Ill., to tag five hospitals.

"I was opposed at first," says Fran Jacobs, nurse coordinator at Rush-Presbyterian-St. Luke's Medical Center in Chicago. "The staff wanted to know if they'd be tracked in the bathroom." Michael Clark, a Versus product manager, says the system doesn't watch what you do, it just knows where you are.

Jacobs says the system lets her locate the nurse and equipment closest to a patient in need. It also alerts staff when visitors are kept waiting too long. Still, it makes her a bit uneasy. "I could see this misused by someone eventually."

"We've adopted the Orwellian, negative definition of Big Brother," says Clark. "It used to mean a quiet, strong presence—that's what our system is. In the next five years this will be everywhere." Very reassuring.

The Forbes/Bridge Economic Forecast

Edited by Shlomo Z. Reifman

THE U.S. ECONOMY	Actual latest	1998	1999 est mean	1999 est high	1999 est low	4-wk % chg in mean
Automobile sales[1] (mil)	16.0* dec	16.0a	14.3	15.6	12.0	1.2
Capacity utilization (%)	80.9 dec	80.9a	80.2	82.6	77.0	0.0
New housing starts[2] (thou)	1,604* nov	1,566e	1,468	1,624	1,300	0.0
Retail sales[3] ($bil)	2,019* nov	2,242e	2,235	2,600	2,000	–5.9
Trade balance[4] ($bil)	–158.8* oct	–198.3e	–232.1	–130.0	–333.0	11.7
Unemployment rate[5] (%)	4.3 dec	4.3a	5.1	7.0	4.0	0.2
Gross domestic product[6] (%)	3.7 3rd qtr	3.3e	2.2	3.5	0.6	1.4
INFLATION						
CPI services (unadjusted) (%)	2.6 dec	2.6a	2.6	3.1	2.0	–2.7
CPI total (unadjusted) (%)	1.6 dec	1.6a	2.0	2.9	0.9	–3.5
INTEREST RATES						
30-year Treasury yield (%)	5.07	5.09a	5.34	7.00	4.00	–0.2
3-month Treasury yield (%)	4.44	4.48a	4.59	6.00	3.25	–0.6
PRICES						
CRB-Bridge spot indexes	241.97	235.22a	217.08	260.00	163.33	–1.1
Gold per troy ounce ($)	286.90	288.10a	281.67	320.00	250.00	–2.6
Oil/bbl W Texas Intermediate ($)	12.45	12.05a	15.50	19.00	9.50	–3.4
CURRENCY						
German marks per dollar	1.67	1.68a	1.79	1.83	1.25	0.0
Yen per dollar	114	114a	135	158	110	0.6
Euro per dollar	1.17	1.17	1.19	1.19	1.19	NA

FEDERAL FUNDS WATCH Next Federal Reserve meeting: Feb. 2, 1999

Current rate: 4.75% **Last action:** Nov. 17, 1998 –25 basis points

Likelihood of shift in interest rates in the next 90 days by the Federal Reserve

Very likely **Possibility of decrease or increase** **Very unlikely**

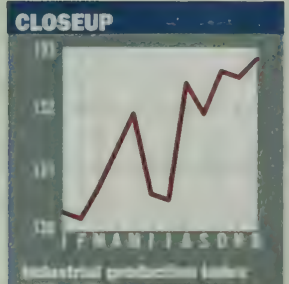
Estimates are contributed by leading economists, surveyed biweekly by Bridge Information Systems. Forbes magazine. Consensus forecasts as of 1/14/9

American consumers went on a spe ing binge in 1998, spurred by surg U.S. stock prices and cheaper A imports. The year's final tally sho show consumer spending up abou but disposable income up just 3%, James Glassman, senior U.S. eco mist at Chase Securities in New Yo

Glassman doesn't expect such a parity this year. He thinks A economies will start to recover that U.S. consumers will not benefi much from cheap Asian prices. Gl man also doubts that 1999's st market performance will give U consumers a similar psycholog boost. His forecast: growth of 2% both consumer spending and disp able income, and just a 1.7% gain gross domestic product.

SPECIAL FOCUS

The Bridge/Commodity Research Bureau's spot index of a market basket of 22 important commodities has fallen 9% since January 1998. The economists in the Forbes/Bridge economic survey expect prices to deflate another 10% in 1999.

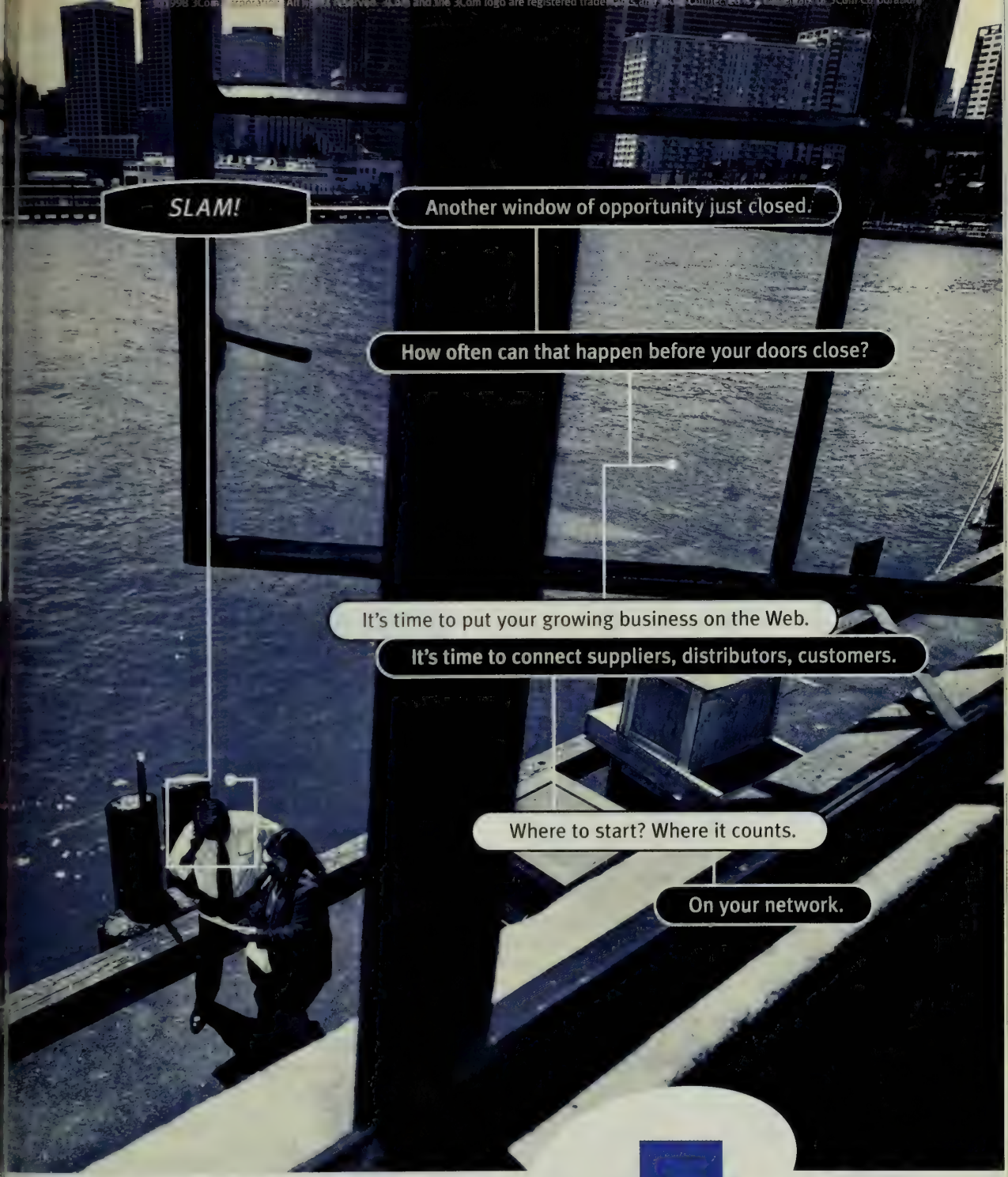


Current	Previous	Change
132.8	132.5	0.2%

The Forbes Index is a measure of U.S. economi activity composed of eight equally weighte elements: the cost of services relative to a consumer prices, the level of new orders fo durable goods compared with manufacturers inventories, total industrial production, ne housing starts, personal income, new claims fo unemployment compensation, total retail sale and total consumer installment credit.

Our Web site, www.forbes.com, has daily updates on economic estimates and detailed information on Forbes Index components.

*Twelve months. a: actual. e: estimate. [1]Autos, light and heavy trucks, including imports. [2]Total single and multiple family, seasonally adjusted. [3]Excluding auto sales, annualized and seasonally adju [4]Total goods and services, annualized and seasonally adjusted. [5]Percent of civilian labor force [6]Quarter-to-quarter percent change, annualized. NA: Not available. *Source: Bridge Information Systems*



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TECHNOLOGY There's a golden age ahead in the wireless business—to judge from the wild bidding for AirTouch. But when are we going to get there?

Cell phones for the masses

By Carleen Hawn

WHEN THE DUST SETTLED on the bidding war for AirTouch Communications, Vodafone emerged as the proud owner (once the $56 billion deal closes) of 14 million new cellular customers—at an effective cost of $4,300 each. How could any customer base be worth so much money?

Maybe it isn't. But multibillion-dollar takeovers are a quick, if costly, way to get around a daunting drawback in the U.S., the world's biggest wireless market: the penetration problem. Some 67 million Americans now tote cell phones, a mere 24% penetration, far lower than in Finland, Israel, Hong Kong and Italy, where the rates are 35% to 50% and climbing fast. The U.S. customer base grows at only three percentage points per year—a lazy pace that would take 25 years to sign up everyone.

Hence the AirTouch attraction: More than half, or 8.4 million, of its customers are in the U.S. AirTouch stock was trading at $60 when Bell Atlantic began wooing the company; several rivals took a look, too, only to be trumped by Vodafone at $97 a share. That is a pricey 21 times cash flow, and producing a payoff will require raising penetration.

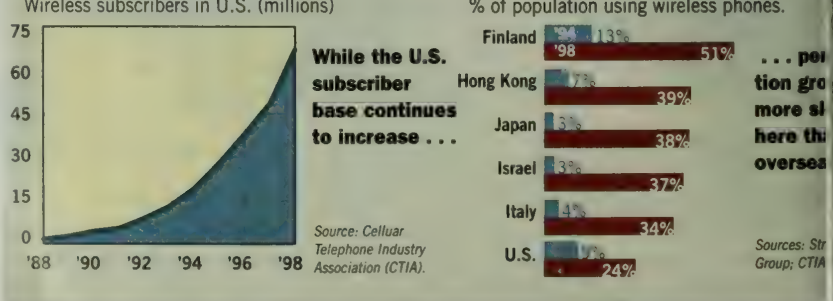
All wireless players must do the same, for the cozy duopolies that reigned in local markets when cellular service began in 1983 began to fall in 1995. Now six carriers compete in most of the top 15 U.S. markets. Each year 25% or more of a carrier's customers switch to a rival or quit, a churn rate that could rise as competition spreads. Worse, both average revenue and minutes of use per subscriber have declined in the past five years.

Cellular phone executives know what they are up against. "We have got to start reaching new segments of customers, ones we've never had before," says Dennis Strigl, chief executive of Bell Atlantic's wireless business. "It's teens, the retired population, the soccer moms."

Easier said than done. "I see absolutely no reason to use a wireless phone," says Ann Nord, 63, a retired nurse in Anacortes, Wash. "I'm not out at night by myself or on the freeways so I don't need it for safety. I have a phone and a fax in my home. I use e-mail. A wireless phone would be just another piece of equipment to take care of."

The higher penetration rates overseas are due in part to interminable waits for regular wired service and antiquated wired networks, factors that don't exist in the U.S. Indeed, reaching the Ann Nords here will require clearing some hurdles created by the carriers themselves. Wireless service is still too expensive for everyday use. Service is spotty. And wireless phones have an image problem here. They

Is the wireless era on hold?



viewed as pricey toys brandished by self-obsessed professionals and spoiled teenagers. Using a cell-phone at tableside in a restaurant is still seen as gauche in the U.S.; in Italy it is *de rigueur*.

In the U.S. wireless service costs an average of 30 cents a minute and runs up to 75 cents. Some high-use plans charge a dime a minute, but the cheapest rates will have to fall to 3 cents within a few years to unlock new growth, says Andrew Cole, a consultant with Renaissance Worldwide. Now do the math: If overall rates fall by, say, two-thirds, even a 200% surge in usage leaves you treading water.

AirTouch's David Whetstone: selling wireless phones alongside Big Gulps.

Service also will have to improve. Only AT&T, Sprint PCS and Nextel Communications have networks large enough to carry calls coast to coast, and even their coverage isn't ubiquitous. Worse, while wireless phones overseas use a single standard (called GSM), in the U.S. five incompatible designs compete: cellular analog; the digital "time division" multiplexing favored by AT&T; the digital "code division" multiplexing favored by most other carriers; GSM; and then a fifth format from Nextel. No phone can handle all five formats.

Even local coverage can be uneven because carriers haven't installed enough cell transmission stations. The industry brags that only 2% of calls don't go through; even if you take that claim at face value, that still means 92 million dropped calls every month.

Yet future growth could rely on convincing the reluctant among us that wireless service is good enough to replace regular phones entirely. Do that, says Hilary Mine of Probe Research, and "realistically the wireless industry could get penetration up to 40% in the U.S."

That will require a new round of jolting price cuts—not to mention a new image for wireless service as an affordable necessity rather than the power tool of the corporate elite. In Plano, Tex., AT&T has a wireless trial offering unlimited local calls for $40 a month (FORBES, *Jan. 25*). Nationwide, AT&T's hot Digital One Rate plan offers 600 minutes of talk—with no fees for "roaming" or out-of-network calls—for $90 a month. "Your wireless phone can be your only phone," AT&T ads promise.

Nextel, Sprint PCS, Bell Atlantic and Omnipoint now have similar plans. The problem is these flat-rate plans appeal to existing, high-volume customers more so than to new users. They are preaching to the converted.

Another challenge: In the U.S. you must pay for both incoming and outgoing wireless calls; in Europe you don't get hit for calls others make to you. That is why, overseas, AirTouch customers generate 40% more minutes of use and 36% more revenue each month than customers here ($61 a month per user in Europe, $45 in the U.S.).

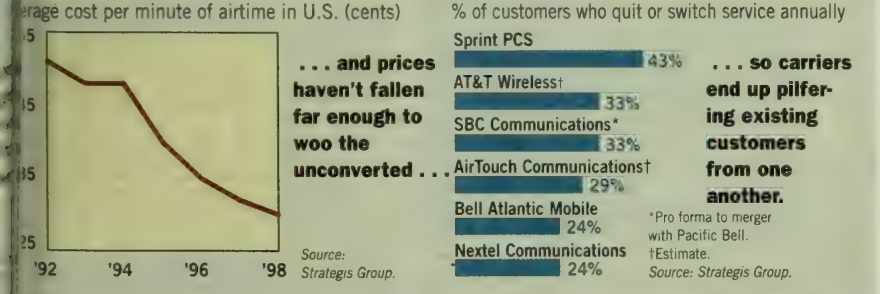
U.S. users worry about bills spiraling out of control. Jeffrey Tahler, 25, works in the movie industry in New York and pays Bell Atlantic $50 a month for 30 minutes of talk time, plus free evenings and weekends. Yet he makes just five calls a day. "It's still very expensive because a weekday incoming call costs over a dollar. So I leave my phone turned off 75% of the time," he says.

Carriers are trying calling-party-pays in a few markets (AT&T in Minnesota, Bell Atlantic in Arizona). But that requires local phone monopolies to bill callers, and they are often unwilling. The wireless industry has asked the Federal Communications Commission to intervene, but the feds are reluctant to get involved.

Wireless marketers are trying other ways to overcome consumer reluctance. AirTouch sells prepaid wireless packages at 7-Eleven and Circle K to entice teens and moderate-income consumers who might not walk into a wireless store. For $79 shoppers get a phone and a calling card good for 20 minutes of talk time. "We're hoping that it will be an impulse buy that consumers will stumble across while they're buying bread," says David Whetstone, an AirTouch marketing director. Of the 1.4 million new subscribers that AirTouch picked up in 1998, 10% came from prepaid plans.

Still other carriers are trying to pitch wireless as a family matter. So-called companion packages from Bell Atlantic, AirTouch, BellSouth and Pacific Bell offer customers additional phones at little to no cost to give to their children or spouses. With one wireless account you could have two phones and use one to call your daughter on the other when you get separated at the mall.

Look for such efforts to accelerate. If carriers fail to sell to the masses, their business could look more and more like a zero-sum marketing game in which a fixed collection of customers gets churned back and forth. Note to Vodafone: A zero-sum customer base is not worth $4,300 per subscriber. ■



DEALS Wealthier teams win out.

Slam dunk for whom?

ANDREW D. BERNSTEIN/ NBA PHOTOS

RIGHT AFTER NBA PLAYERS and owners reached a new collective bargaining agreement in early January, FORBES tapped into its sports database *(see* FORBES, *Dec. 14, 1998)* to see which NBA teams won—and lost.

Conventional wisdom: The deal, which set minimum and maximum individual player salaries, would help financially downtrodden teams. Well, not quite.

If the new salary structure had been in place last season, the financial gap between the haves and have-nots would have been even wider. The Bulls, Knicks and Lakers would have made even bigger killings. This is because the deal has a maximum annual salary of $14 million for any one player. This will obviously benefit the high-revenue teams that are prone to hand out those superstar contracts.

Meanwhile, perennial money-losers, like the Bucks and Hawks, would have suffered even more. The reason: The floor on salaries includes $1 million per season for ten-year veterans, up from $272,250. With no boost in revenues, the poorer teams will see their margins squeezed.

–KURT BADENHAUSEN

Team	Current value ($mil)	—Operating income— unadjusted* ($mil)	adjusted† ($mil)
Chicago Bulls	$303	$8.6	$26.6
New York Knicks	296	18.3	24.8
Los Angeles Lakers	268	24.8	28.3
Portland Trail Blazers	245	34.2	33.0
Phoenix Suns	235	15.3	14.4
Washington Wizards	207	8.2	9.7
Detroit Pistons	206	30.0	29.4
Utah Jazz	200	20.7	20.6
Philadelphia 76ers	196	8.6	8.3
Boston Celtics	176	10.5	10.5
Seattle SuperSonics	169	3.3	1.8
Houston Rockets	166	20.3	18.5
Cleveland Cavaliers	161	13.5	12.7
New Jersey Nets	157	8.4	7.4
Indiana Pacers	152	–4.8	–5.2
Miami Heat	145	–7.5	–5.9
Atlanta Hawks	140	–9.1	–10.4
Orlando Magic	134	–1.9	–2.6
Vancouver Grizzlies	133	1.3	1.1
Golden State Warriors	130	–2.5	–2.5
Charlotte Hornets	124	9.2	8.5
San Antonio Spurs	122	0.7	1.6
Toronto Raptors	121	1.6	1.3
Dallas Mavericks	119	–6.8	–7.0
Sacramento Kings	119	–5.2	–5.4
Minnesota Timberwolves	119	5.8	5.3
Denver Nuggets	110	–6.8	–7.4
Los Angeles Clippers	102	–4.9	–5.0
Milwaukee Bucks	94	–3.2	–4.0
Average	167	6.6	7.2

*Revenues less operating expenses for 1997-98 season.
†Prorated for new minimum and maximum salaries.

Technical foul! The NBA labor agreement will hurt, not help, teams with modest revenues.

TAXES The IRS has gotten in the habit of bullying taxpayers. Every now and then somebody like Dr. Robert Maddox fights back.

What statute of limitations?

By Janet Novack

IT HAPPENS ALL TOO OFTEN with the Internal Revenue Service: The agent pulls a file for an audit and drags his heels conducting it. Then, just before the three-year statute of limitations expires, he demands more time. If the taxpayer refuses to sign the extension, bam! The auditor disallows all items in question, and the IRS sends a notice demanding additional taxes.

Most taxpayers meekly sign. But El Paso ophthalmologist Robert M. Maddox and his wife Paulette did not.

The IRS decided in 1994 to audit the Maddoxes' 1991 and 1992 tax returns. Yet an agent discovered the returns lying fallow in a filing cabinet in Dallas, in December 1995. That was six months before the statute of limitations would expire on their 1991 return.

Rather than order a rush audit, a manager waited fo more months and then told an agent to get the couple extend the deadline by a year.

That's despite the fact that the couple had already gra ed the IRS one nine-month extension, when they asked have the audit transferred from El Paso to Dallas, wh their longtime lawyer/CPA, Daniel W. Schreimann, k their records. Schreimann decided this new extensi request was unreasonable, and refused to sign.

True to form, the IRS hit the Maddoxes with a bill $992,499 in back taxes and penalties, plus interest. Th appealed to Tax Court and, as is routine, the court s their case back to the IRS for mediation. There, an appeals officer concluded—after some adjustments—t they didn't owe a penny.

Meanwhile, the Maddoxes and their $1 million tax l had been splashed across the TV news and the front page the *El Paso Times.* (Tax Court records are public and l Maddox was well known locally.)

Potential tenants in a surgical center the Maddo owned pulled out. A man was rude to Paulette Maddox the supermarket. And Schreimann's fees mounted. "It v tyrannical what they were trying to do to us," says l Maddox.

In December U.S. Tax Court Judge Herbert L. Chab ruled that the IRS' behavior was unreasonable. He award

JAMES MCGOON

ulette and Robert Maddox with lawyer Schreimann (right).

e Maddoxes $15,000 for court and attorneys' costs, hich covered about two-thirds of what they spent. Such vards can be made to taxpayers with a net worth of less an $2 million if they have cooperated with the IRS and the rvice has taken an unreasonable position.

Even then, the IRS tried to wriggle out of paying, saying Schreimann hadn't returned some IRS phone calls and hadn't turned over some records. But Judge Chabot found that the IRS hadn't even asked for the records.

The decision is good news for other beleaguered taxpayers under pressure to sign extensions. Currently there are more than 30,000 audits under way in which the IRS has, or will soon need, extensions, about 12% of the total. "Extensions of the statute of limitations are supposed to be voluntary," says Houston tax attorney Edward Urquhart. "But the IRS' current approach makes a mockery of the idea of voluntary. It bypasses Congress' intent."

Ironically, the IRS policy hits hardest those who are basically law abiding. If a taxpayer has underreported income by more than 25%, the IRS has six years instead of three to catch it. And if the IRS can prove a taxpayer committed civil tax fraud, it has forever.

The IRS won't say whether it will appeal the Maddox decision. But IRS Assistant Commissioner Thomas Wilson told FORBES that this is an area where the IRS may need to change. Says Wilson: "Our mind-set has always been to protect the government's interest. Now we're saying let's think about whether or not this is actually fair to the taxpayer." ■

TECHNOLOGY Scientific-Atlanta hopes to whip archrival eneral Instrument with its new digital set-top box. laying catch-up is more like it.

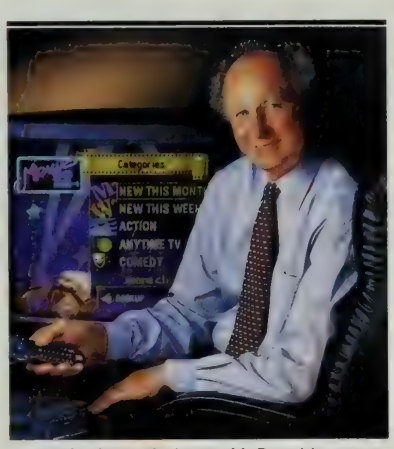
My box can beat your box

y Bruce Upbin

HE FIGHT OVER a precious piece of urf in the Digital Age—the top of our TV set—is about to get a lot ougher.

In one corner is the perennial hamp, General Instrument, with a 5% share of the $3-billion-a-year usiness of making the set-top boxes hat funnel cable programming to TV creens. In the other is the market's ongtime also-ran, Scientific-Atlanta, ow hawking its next great hope for n upset: the Explorer 2000.

The $350 box boasts more processing power—54 million instructions per second—than any other ox on the market. Linked to a digital network, this thin, gray device promises moves the champ can't yet match—high-speed Web browsing, phone calls, shopping and games (once such things are available).



Scientific-Atlanta's James McDonald
He's built a better box. Is that enough?

News that Scientific-Atlanta had shipped 126,000 boxes last quarter—twice as many as expected—sent the stock up 25%, to $31.25. By next year the new line and related gear could provide 25% of the company's $1.2 billion in annual sales.

For Scientific-Atlanta's James McDonald, the Explorer is a shot at a rematch. Shortly after he arrived as chief executive officer in July 1993, he gave the go-ahead to develop a supercharged digital box to serve a new world of fully interactive video networks to be built by the Baby Bells, Time Warner and others.

The Norcross, Ga. supplier had always been an engineers' firm, and it ended up overengineering a box that was too far ahead of the market. Early prototypes cost $3,000 apiece. Time Warner was to be a big customer, but then its much-hyped network project in Orlando, Fla. infamously fizzled. Most other companies abandoned their interactive ambitions, too.

Meanwhile, General Instrument, based in Horsham, Pa., stuck to older-design analog boxes. It finally

put out a less ambitious digital box in 1996—which mainly let cable operators squeeze in more channels with better picture quality.

Now General Instrument has 1.5 million digital set-tops in use. Scientific-Atlanta's Explorers are barely off the truck. Since 1995 General Instrument's revenue has risen 9% a year, compared with just 1% at Scientific-Atlanta. The latter's shares are up just 12% a year since McDonald took over, well below the S&P 500. The stock now is at 46 times 1999 earnings.

Can Explorer keep the stock aloft? Other revenues (satellite, transmission and analog) are expected to stall. That makes Explorer's lead all the more important. It may be nine months before General Instrument catches up—but will that be enough?

No way, scoffs General Instrument's chief executive, Edward Breen. By next fall the set-top champ will ship its more powerful answer to Explorer, the DCT-5000. AT&T says the DCT-5000 will be "the workhorse" at the cable s tems it will own after acquiri Tele-Communications.

"Right now it's 98% us and them in digital. By the time they rolling anything out commercia we'll have the 5000 out and leapfi them," Breen boasts.

James McDonald is careful avoid predicting victory. "We'll kn 18 months from now what kind lead we have, and we won't be in same place then," he says, addi hopefully: "We'll both do fine."

ISSUES The technology to make meat safer has been around since the 1960s. But industry indifference and regulatory torpor have nullified it.

These people didn't have to die

By Michelle Conlin

THE NEWS HAS TRICKLED OUT in recent weeks, buried deep inside the local papers: Tainted hot dogs sold by Sara Lee Corp. have caused nine adult deaths and three stillbirths.

The bad franks, sold under the Ball Park, Bil Mar and Hygrade brand names in 12 states, carried a fairly common bacterium called *Listeria monocytogenes*, which had gone undetected for weeks—maybe even months—at a Sara Lee plant in Zeeland, Mich. Last month Sara Lee closed parts of the plant and recalled tons of deli meats and hot dogs, setting a $50-million-to-$70-million charge.

In mid-January Oscar Mayer recalled lunch meats after tests found traces of *Listeria*. Each year more than 1,250 people—the elderly, small children and people with weak immune systems—get sick from *Listeria*-laced meats, not to mention meat infected by other pathogens.

Why, in the highest-tech nation in the world, are hot dogs hazardous? The answer lies in poky regulation and industry indifference.

The closest thing we have to a magic bullet killing contamination—irradiation, which show meat with electrons, gamma rays or X rays to dest harmful bacteria—has been around since the 196 People have eaten irradiated fruit, vegetables a spices for years.

Yet in the $100-billion-a-year beef, pork, lamb a poultry industries, the technology has gone nowhe It was approved for chicken producers in 1992, b is used on less than 1% of the output. "It could ha prevented this outbreak," says Dennis Olson, a t meat scientist at Iowa State University. "These peo didn't need to die."

ERIC MILLETTE

Irradiation kills harmful bacteria in fruits and vegetables; it could also make meat safer. But try telling that to panicky consumer groups.

A fleeting sense of urger emerged in early 1993, af *E. coli*-tainted meat at t Jack in the Box chain kill four children on the W Coast. An irradiation out called Isomedix petition the Food & Drug Admin tration to approve irradiati within 90 days.

But the meat produc didn't push the plan, and t FDA sat on the petition for years—even though irrad tion has withstood inter study and has been prov to be as safe as milk paste ization. The agency mov "as quickly as possib but this is an extremely tec nical process," an FDA scie tist says.

Two more outbreaks of *coli*, at Hudson Foods a Beef America in the fall 1997, reenergized the irradiation movement. By th December the FDA had finally given the go-ahead.

But the plan stalled again, this time at the U.S. Ag culture Department, which has a right to put in its tw cents worth because it controls meatpacking. Proponer

ped the USDA would green-light irradiation within a nth; it still hasn't.

It gets worse. The current proposal applies only to raw at. The Sara Lee franks were cooked. Covering cooked at will require a new petition, which could take years re to wend its way through the regulatory labyrinth. nce the USDA approves the pending plan, it could take o years for packing plants to install the necessary equipnt—if they choose to do so. That isn't a given: Three ans—Cargill, ConAgra and IBP—control 66% of beef oduction, and ConAgra and IBP seem lukewarm to the adiation idea. The government doesn't require testing ground beef samples for the kind of *E. coli* that killed e Jack in the Box kids. But there's a disincentive r meatpackers to do even voluntary testing for this ain, which is why Cargill and IBP don't. If any *E. coli* found, the meatpacker must destroy an entire productn cycle and order massive product recalls that go far beyond the scope of the contaminated sample.

One reason the regulators and the meatpackers are dragging their feet is that this country still harbors an anti-irradiation movement that will put up a stink if the technology is put to use. A group called Food & Water, Inc. has instilled in a fair number of consumers a visceral fear of the process, as if eating irradiated meat were the equivalent of swallowing radium capsules.

Hoping to stop technology in the supermarket if they can't stop it in Washington, D.C., the irradiation opponents have run fear-mongering ad campaigns. Irradiation-bashers also say the meat should carry warning labels suggestive of what you see on hazardous materials cargo.

Fair enough. Let's put a prominent disclosure on the packages of irradiated meat. And the packages that aren't irradiated should be required to carry obituaries of the Sara Lee victims. ■

TRENDS America's self-improvement session takes a turn to the dark side.

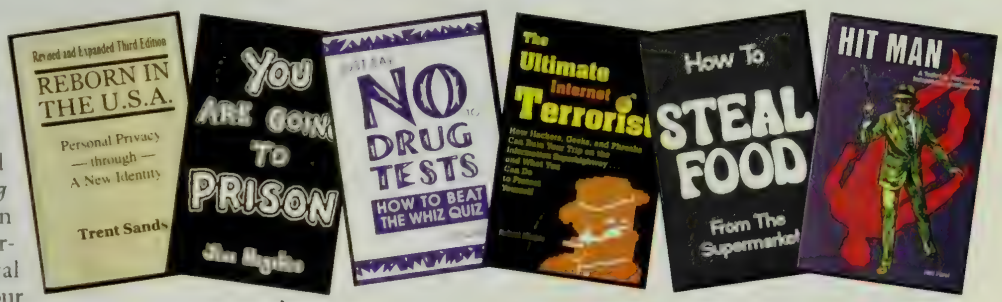
Crime 101

r Scott McCormack

ITH GUIDES on how be a better parent, ouse and lover, a ok on becoming a tter liar, cheat and ief was badly needed an antidote. *Making rime Pay* by ex-con arold Long gives aspirg outlaws practical lvice: Never discuss your rime with anyone, always wear a sguise and tight gloves (bulky ones mpt you to shed them), and be sure o don new shoes so you don't leave dividualized prints from worn soles. nd, don't forget to burn all of he above after you have committed he crime.

The tips come from one of the 700 northodox how-to titles sold by ort Townsend, Wash.-based Loomanics Unlimited, one of several specialized publishers that have carved ut a profitable niche in publishing's true crime" category.

The books are just right for an ge when Hillary Clinton can blame er husband's troubles on a "right-ing conspiracy"; the books are filled ith devious, often dangerous, ways of skirting the law. For the seriously criminally inclined—or at least morbidly curious—Loompanics titles include: *Hunting Humans: An Encyclopedia of Modern Serial Killers* and *The Poisoner's Handbook*, which colors recipes on poisons with folksy but highly disturbing comments like, "Botulism is fun and easy to make."



Sick, but the titles sell. Loompanics grossed nearly $1.8 million last year. Who buys this weird stuff? Founder Michael Hoy claims some of his largest customers are police departments, security officials and writers trying to get inside the criminal mind. His main competitor, Boulder, Colo.-based Paladin Press, makes similar claims. Paladin says it sold $4 million worth of the books in 1997.

Not surprisingly, both publishers do a thriving on-line business (www.loompanics.com and www.paladin-press.com). The pay for authors isn't great; the typical advance is only $500 to $750, plus a royalty of around 10% of sales, yet Loompanics and Paladin receive dozens of unsolicited manuscripts from renegade chemists, convicts and others every month.

In addition to such mundane titles as *Soldiers on Skis* and *Gang Intelligence Manual*, Paladin publishes *Improvised Explosives* and *Hit Man: A Technical Manual for Independent Contractors*. That last book has cost the company hundreds of thousands of dollars in legal bills, fighting off a lawsuit after a reader murdered three people in a contract killing.

"We didn't cause the murders. Greed did," says Paladin founder Peder Lund, a former U.S. Army Special Forces soldier. ■

POLITICS Were you surprised that Salt Lake City got tangled up in an Olympics bribery scandal? If you know much about financial scams, you might have expected it.

Fraud per capita

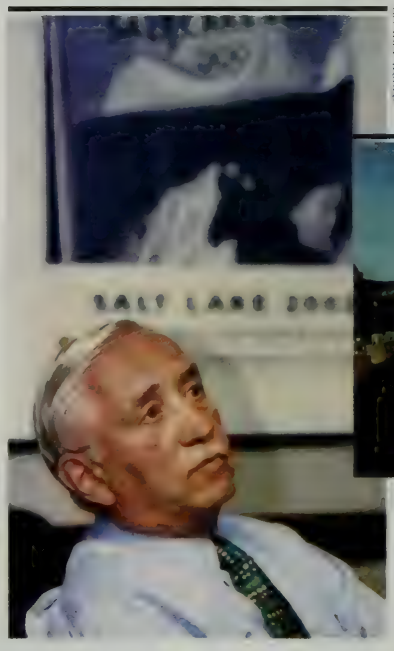
By William P. Barrett

SALT LAKE CITY WON the bid to host the 2002 Winter Olympics with help, it now appears, from bribery. Judging from news accounts, free-spending Utahans evidently bought votes from foreign delegates with scholarships, job offers, no-risk business deals and even paid sexual services charged to official credit cards. Are you stunned? Not if you know the place. For decades this scenic town has been a leading center of financial shenanigans.

Here's a distinction civic boosters won't talk up: Salt Lake City, with a mere 170,000 residents, is by far the country's smallest city where the scam-fighting U.S. Securities & Exchange Commission has an office. It has been there since the early 1950s. Why? "There is a lot of fraud here per capita," says local SEC boss Kenneth Israel. "There doesn't seem to be any shortage of work for us."

The dubious Salt Lake Stock and Mining Exchange closed in 1986. Promoters, meanwhile, were pumping over-the-counter "blind-pool" stock offerings. These were shell corporations ostensibly waiting for opportunities, but in fact just waiting for suckers (FORBES, *June 27, 1988*). Also a problem: flogging of worthless penny stocks. Now scamsters have moved on to more up-to-date and varied rip-offs.

A trustee is trying to recover $30 million taken in two related schemes alleged to be Ponzis; investors thought they were financing, among other things, trendy laser equipment for eye surgery. An appeals court just upheld the conviction of a Utahan accused of hosing German investors out of $25 million by creating companies without substance. Six locals, one a former legislator, were convicted of using something called the Professional Excellence Center to extract an estimated $6 million from dentists and others around the country seeking patient referrals. A father-son team awaits trial on charges of swindling $10 million in fees from up to 6,000 would-be authors seeking help in getting their manuscripts edited and published. According to court records, the pair gambled away much of the money in Las Vegas.



AP/WIDE WORLD

Frank Joklik (left) and Dave Johnson, resigning Olympics officials in Salt Lake C
Did a city with a flair for skullduggel land the Olympics using bribery?

Some big-name victims pop up. Two Utahans settled their part in a still-pending SEC suit charging that Lehman Brothers and Bank Leu, the big Swiss financial institution, were bilked out of $9.5 million through various stock scams. The alleged method: borrowing shares of restricted stock in several small companies to use as collateral for loans without telling the banks the shares were borrowed.

It is curious that thinly populated Utah has a statewide Financial Crimes Task Force. The enforcers, to be sure, don't want to add to Utah's image problems: S. Anthony Taggart, runs the respected Utah Divisio Securities, insists Utah fraud is same here as anywhere." But he deny the statistics. Over the past years total complaints to his o have risen fourfold, to 183; and c inal convictions, eightfold, to 16.

Among the alleged baits rece used to separate unwary investors f their funds: film deals, 19th-cen railroad bonds, gold mines, iron m equipment leases, "medium-t notes," greeting card manufacturi board game teaching investors ho get wealthy and even Mormon chr financings. One fellow went to jail soliciting funds without mentioning was already a convicted swindler.

Salt Lake City just finished pick up the pieces from the 1991 collaps Bonneville Pacific, a publicly tra alternative-energy company that turned out, was heating up its finan statements. Five former officers w convicted of crimes related to B neville, and civil settlements h topped $180 million. One of the co pany's early backers, Deedee Corrad has been mayor of Salt Lake City si 1992. Although not implicated cri nally, she and her ex-husband p $800,000 in settlements. She drew c icism for hitting up prominent Utah for over $200,000 to help cover cos

Next time you get a call pitchin sure thing, ask, before hanging where the caller is from. If it's Salt L City, you can chuckle to yourself bef cradling the phone.

All notebooks travel. Is there one that soars?

Unlike other so-called "highly mobile" notebooks, the Compaq Armada 3500 doesn't swap performance for portability. Designed for the savvy traveler, its topflight specs include a Mobile Pentium® II processor soaring to 366 MHz—in a sleek package as light as 4.4 pounds*. With built-in 6.4 GB† hard drive, full-size keyboard, extended-life battery option and extra-durable magnesium alloy display casing, the Armada 3500 has everything you need for maximum flexibility—and unlimited mileage. To learn more, call 1-800-AT-COMPAQ. Or visit www.compaq.com/soar.

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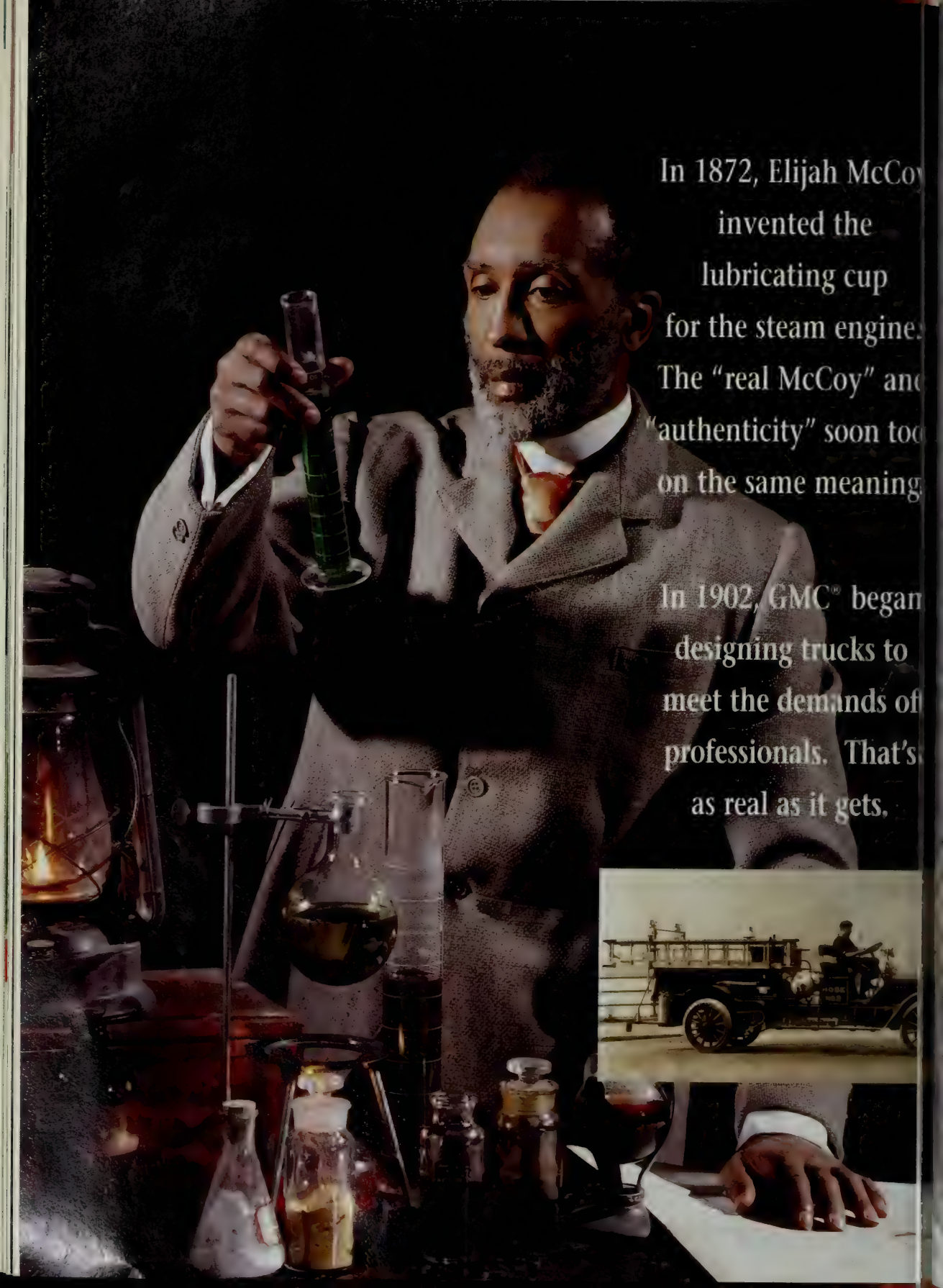
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Everywhere you hear that a "franchise" is the ticket to success in business. Here's one business that doesn't work that way: air travel.

Geography and destiny

By Daniel Fisher

WYATT MCSPADDEN

Continental Chief Executive Gordon Bethune and President Greg Brenneman test meals for the airline's Latin American service.

FOR DECADES ONE OF THE JEWELS in the old Pan Am World Airways system was its Latin American service, with immensely profitable routes like Miami to Buenos Aires and New York to Caracas. The conventional wisdom was that United Airlines would continue to dominate those markets when it bought the routes from the bankrupt carrier in 1991 for $135 million. Ditto for American Airlines, which bought Eastern's equally strong Latin American routes for about $300 million in 1990.

What did United and American get for these outlays? Not planes, which were not included, and only a smattering of hard assets such as ticket counters and airport equipment. What they got, rather, is something that goes nowadays by the name "franchise." This intangible asset—you could also call it going-concern value or momentum—represents the ability to wring profits from an activity out of all proportion to the tangible capital employed. In the case of an airline, it includes the legal right to fly a particular route.

In laying out a lot of money for a Latin franchise, evidently, neither United nor American counted on [illegible] invigorated Continental Airlines that would find a w[illegible] create its own Latin franchise from scratch.

Continental itself emerged from bankruptcy in 1[illegible] After blowing hundreds of millions on an ill-fated mo[illegible] compete with low-cost Southwest Airlines, direc[illegible] brought in Gordon Bethune, a rough-edged jet pilot [illegible] former Boeing executive who decided to exploit Hou[illegible] and Newark; hub cities for Continental.

"We're sitting here and saying, Jesus, we have 15 mi[illegible] people in New York and 4 million in Houston and w[illegible] contiguous to Latin America," recalls Bethune. "Ther[illegible] huge market and we have a tremendous advantage."

Bethune ordered Continental's lawyers to begin [illegible] laborious process of negotiating route authority to L[illegible] destinations. Building on a strong base in Mexico, Co[illegible] nental eventually won authority to fly to 16 cities in C[illegible] tral and South America, including Santiago, Chile and [illegible] de Janeiro. Continental has very effectively used its dor[illegible] tic network to funnel passengers through Houston [illegible] Newark, sending 4 million passengers last year to and fi[illegible] Latin America, double the 1995 volume.

How about United? In the New York area, it operates [illegible] of Kennedy, where the number of flights at peak hou[illegible] controlled, limiting the carrier's ab[illegible] to bring in connecting flights. No s[illegible] restrictions apply at Newark, wh[illegible] Continental is free to add flight[illegible] peak hours. In Miami, United is fig[illegible] ing a losing battle with Americ[illegible] which has built up a formidable h[illegible] there with connections to 35 U[illegible] cities, compared with only 11 [illegible] United. United plans to boost La[illegible] American traffic from other hubs, including Los Angeles [illegible] Chicago. But neither city has the combination of geograp[illegible] convenience and local demand of a Houston or a Miam[illegible]

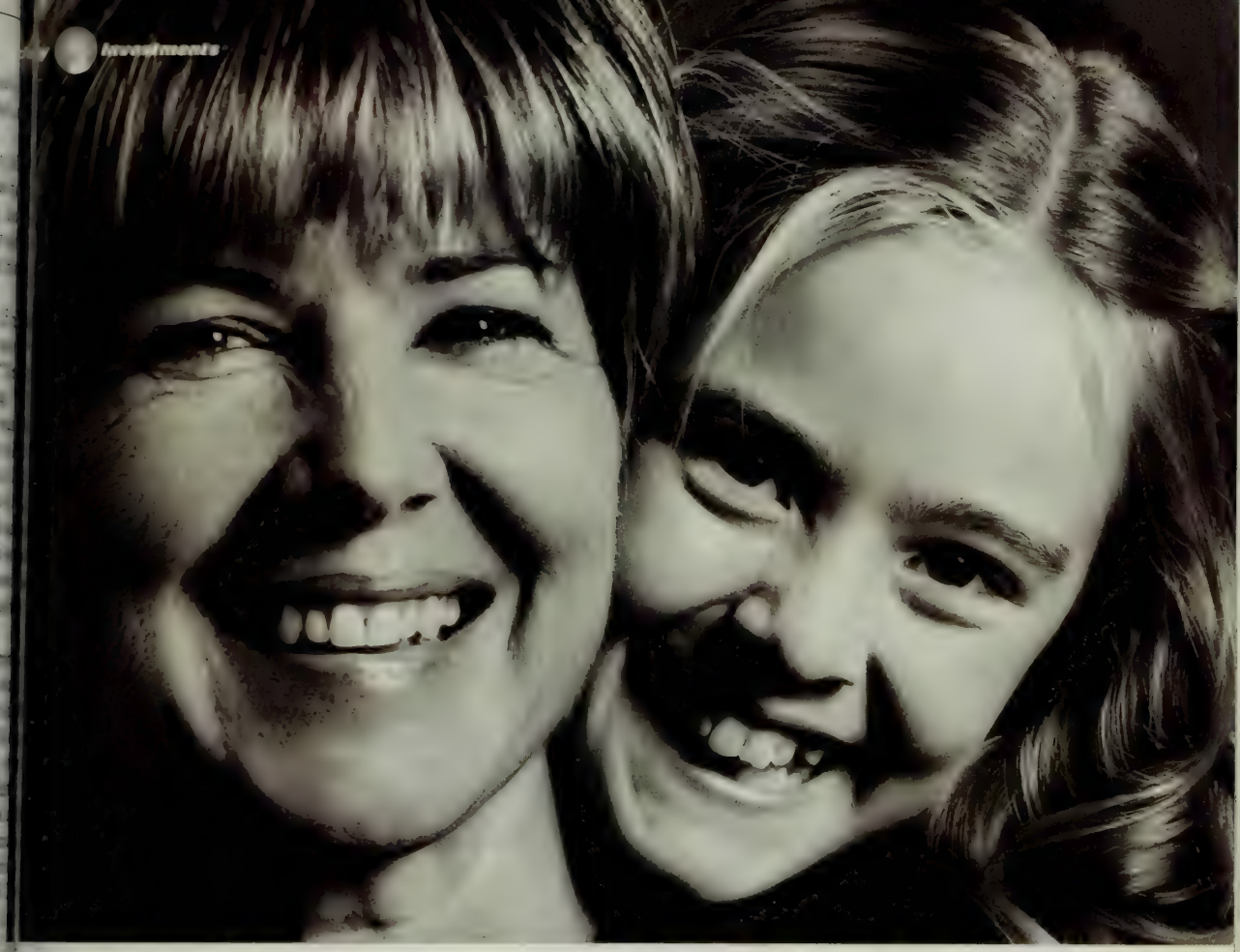
With break-even levels at about 60%, the airline that f[illegible] fuller planes is the one that can add extra flights, boost [illegible] the convenience of its schedule and making it easier to l[illegible] high-paying business travelers.

Continental's load factor, or fraction of seats filled, [illegible] flights to Mexico and the rest of Latin America averag[illegible] 65% in the third quarter, even though the airline expan[illegible] ed capacity by 57% over the year before. United, wh[illegible] boosted its capacity 18%, operated at a 60% load factor.

Bethune won't discuss earnings of Continental's La[illegible] operations, but industry experts say long-haul routes l[illegible] Newark to Chile can earn $2 million to $3 million a ye[illegible] several times what a shorter domestic route can earn. La[illegible] American routes made up about 14% of Continental's [illegible] billion in revenues last year, up from 5% in 1994.

Bethune won't beat out American in Latin Ameri[illegible] where the number one carrier is doing very well on t[illegible] strength of its Miami hub. But, for Continental, the La[illegible] business has turned into a solid moneymaker that is gro[illegible] ing at 7% to 8% a year, more than twice the growth rate [illegible] the U.S. air travel market.

Franchises do matter, but sometimes tangible things [illegible] in the case of an airline, its hubs—matter more.



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SUSAN WERNER

Biocorp's Frederic Scheer and Allan Gra
A business of dreamers and schem

Trying to be green, many companies invested in biodegradable plastics. They ended up in the red.

Good intentions

By Seth Lubove

IT WAS A PROMISING MOMENT for envirocapitalism. Credit card maker NBS Technologies Inc. issued a breathless press release in December touting a new "Green Earth Card" credit card using a biodegradable plastic made by Monsanto, known in some quarters for its toxic chemicals and pesticides.

But behind the scenes, Monsanto was quietly pulling the plug on its biodegradable plastics division, such as it was. "We came to the conclusion that the jury is out [on biodegradable plastics], and it's not apparent people are willing to pay a premium," acknowledges Michael Berezo, the former general manager of Monsanto's Biopol unit. Berezo says that Monsanto could have sold its plant-derived plastic for $3 to $4 a pound at best. That's almost ten times as much as what an ordinary plastic sells for; too expensive to make it competitive. Writeoff: undisclosed. Sales: virtually nil.

Monsanto is by no means alone. Several companies have lost hundreds of millions of dollars on biodegradable plastic schemes since the late 1980s. What wonderfully good intentions they had. But business has to cover its costs.

"The hype got out in front of what the technology can deliver," says Patrick Gruber, manager of a fledgling corn-based biodegradable plastics joint venture between Cargill and Dow Chemical.

Consider the saga of Novon a once-promising biodegradable pla developed by pharmaceutical g Warner-Lambert. Derived from c and potatoes, Novon was promote a replacement for everything from tees to diapers. "The bio-plastic st technology could eventually play a in helping to better manage the hig visible litter stream, much of wh consists of plastics," lectured the co pany's then-chief executive in a 19 announcement. Three years l Warner-Lambert abruptly killed business and took a $70 mill before-tax charge on its reported $ million investment.

Novon later ended up in the ha of Churchill Technology, Inc., a B falo, N.Y. outfit that claimed to h invented a "revolutionary" biodegr able plastic. But the company s into bankruptcy in late 1996, so after a director and major shareho was arrested in a stock promot scheme. What's left of Novon bought last year by Churchill's forr president, Robert Downie.

ACX Technologies, the Adol Coors Co. packaging spinoff, killed another highly touted biodegrada plastics venture, Chronopol, last after deciding that it would take least an additional $100 million build a full-scale plant and sell the st commercially. After finding no pa ners to commercialize the busine ACX took a $17 million writeoff a buried the news of Chronopol's de in a quarterly financial filing.

Despite these failures, biodegradable business continues attract dreamers and schemers, some whom manage to convince pub investors to go along with the Planet Polymer Technologies of S Diego has lost $9.4 million of shareholders' money since its foundi in 1991, and doesn't expect to mak profit "for the foreseeable future Then there's EarthShell Corp., whi raised $250 million in an initial pub offering last March with promises t it had come up with a limestone-bas biodegradable replacement for po

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styrene foam formerly used most prominently in McDonald's clamshells.

"Finally, fast-food packaging that Mother Earth can love!" pronounced Essam Khashoggi, chairman of the board and 73% shareholder (and brother of famous arms trader Adnan), in the company's prospectus. Maybe Mother Earth, but not the auditors, who, noting more than $74 million in operating losses since 1992, questioned the company's viability. EarthShell is depending heavily on a tentative deal with McDonald's, but acknowledges that there is "no binding commitment." Big Mac sent the company back to the drawing board on an earlier clamshell.

"We have agreed with McDonald's to make every effort to keep a low profile," alibis Vince Truant, an EarthShell vice president, when pressed for a delivery date. Meantime, investors who got in at $21 last March have seen much of their money mulched: the stock trades around $14.

"The reality is, as of today, they are basically nothing," sneers Frederic Scheer, whose privately held Biocorp Inc. of Redondo Beach, Calif. is making biodegradable garbage bags and cutlery for a European McDonald's franchise. Scheer claims he's got the only meaningful sales of biodegradable plastics—which he claims are less than $5 million.

The Cargill and Dow Chemical joint venture prefers not to acknowledge that it's developing biodegradable plastics at all. Instead, the companies want to first compete on price and performance with traditional plastics for applications such as clothing fibers and food wrapping. Then they'll promote biodegradability.

"People don't need a degradable product," declares James Stoppert, the president of the joint venture. "Where in the world are there solid-waste problems? There certainly isn't one in the U.S. today. When you look at the current degradable market, it's probably 30 million to 40 million pounds, growing to maybe 250 million pounds, compared with a petroleum-based plastics market of 250 billion pounds a year. Do we want to compete for 30 million pounds—or 250 billion pounds?" Funny things happen when environmentalism meets economics. ■

Real estate agents were supposed to be clobbered by the Internet. No such luck. Yet.

Realtors 1, Web 0

By Kelly Barron

Stuart Wolff, chief executive of RealSelect Inc. and designer of Realtor.com
"The winning hand in real estate is to partner with the industry."

THERE ARE SOME FOLKS that even mighty Microsoft knows better than to tangle with. Real estate agents, for instance. "The agent is winning," concedes Ian Morris, group product manager for Microsoft's home-buying Internet site, HomeAdvisor.

Like other industries crawling with middlemen, real estate seems ripe for the cost efficiencies of the Internet. U.S. home sales generate roughly $30 billion a year for real estate agents, who get commissions of 6% to 7% for putting a home buyer and a home seller together. Why not let a database match buyer and seller? It works so well for stocks and bonds.

Home selling, though, is a lot tr ier than securities trading. The typ arrangement is for the listing broker commission—let's say it's 6%—to split evenly between the listing brol who handles the seller, and the sell broker (sometimes referred to as "buyer's" agent), who handles buyer. The brokers who list houses often, the same people who act as s ing brokers, but on any given ho sale they are not necessarily the sa person. Despite the fact that the list broker and the selling broker get same payoff when a sale goes throu

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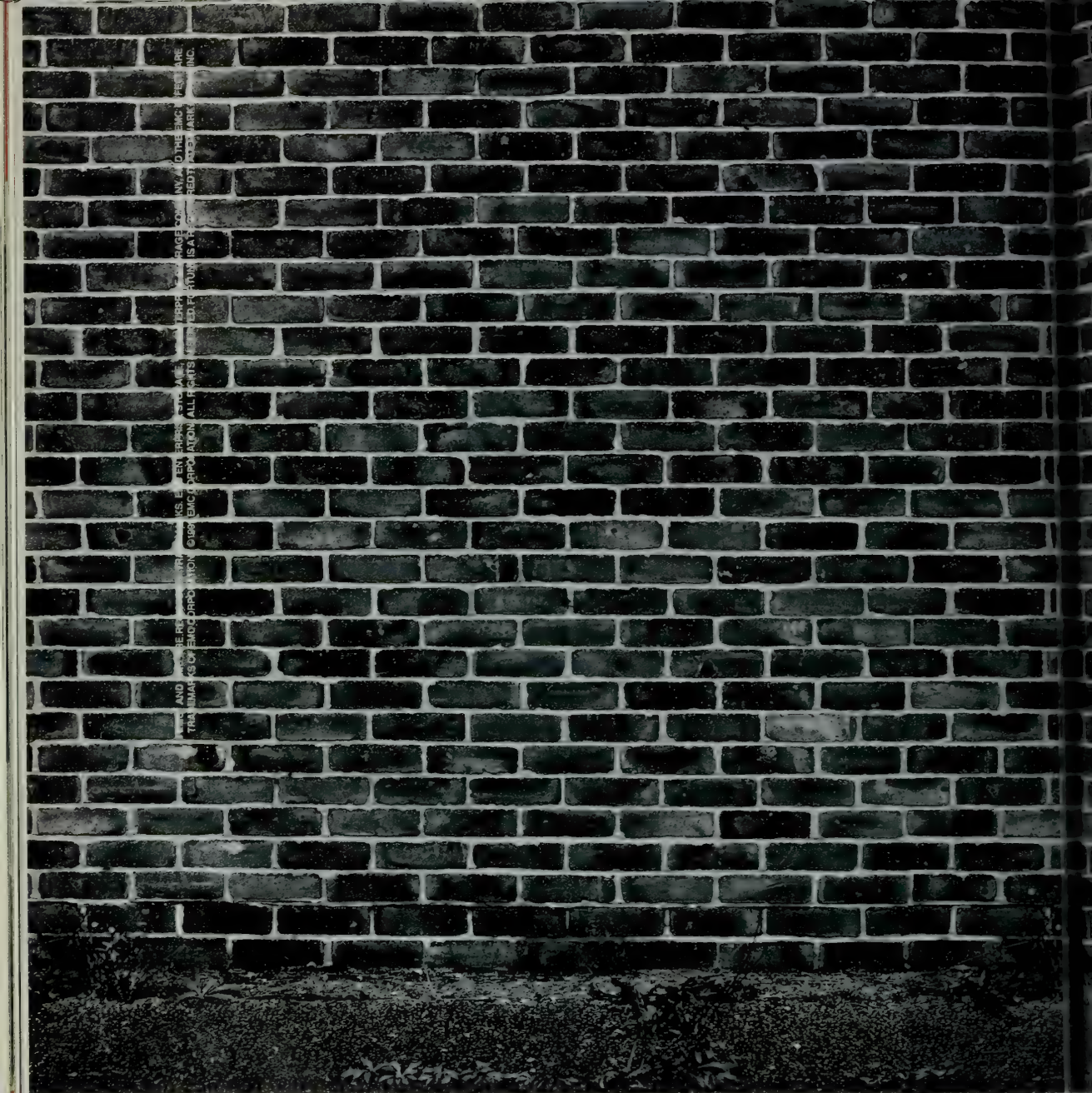
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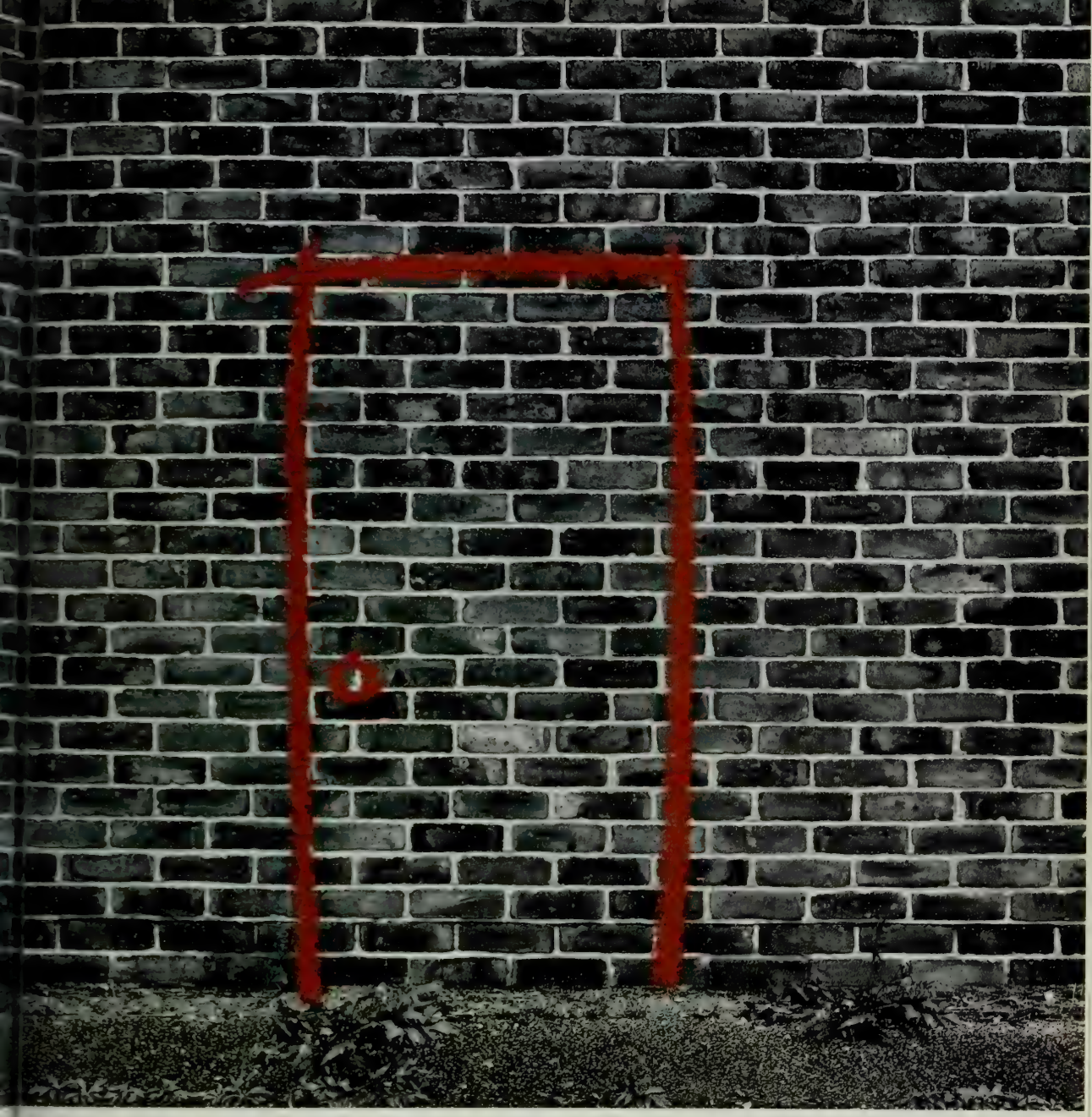

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they do very different amounts of work. On a $300,000 house the lister would pocket $9,000 for inspecting the property, recommending an asking price and passing along some purchase offers. If you are the buyer's agent, though, you work hard for your $9,000 commission. You might have driven various shoppers on scores of house-hunting trips before landing that one commission.

The role that digital media could play in this transaction is all too obvious. Hand the home seller a camera and some software and let him post his own listing on a national database. A prospective buyer would be permitted to visit the house only when escorted by a licensed broker. That listing broker would still get a commission as before. But there's no reason the cost at the listing end could not shrink from $9,000 to $90.

RICH FRISHMAN

J. Lennox Scott, president of John L. Scott Real Estate

Undercut Realtors? No way—they're his clients.

Nice in theory. But so far it hasn't worked out this way. Far from squeezing out half of the brokers' meal ticket, technology has done little to disturb the long-standing commission structure in the business.

In its six-month-old Internet site, Microsoft has a database of 500,000 homes for sale. But to get those listings it has had to team up with real estate agents. The home listings steer prospective buyers to the listing agent. What about taking a piece of those commissions? It's not in Microsoft's business model. "It was never fully considered," says Morris with a straight face.

Hard to believe Microsoft didn't contemplate grabbing commissions. But what good would it do to gain all manner of listings if brokers never showed those houses? They might just boycott any home seller who tried to dodge the 3% listing cost.

Microsoft plans to generate revenue a different way, through mortgage origination services, banner advertising and, possibly, customizing software for individual brokers and real estate agents. Theoretically, fees also could be garnered by referring buyers to home inspectors, moving companies and the like.

No dummies about technology, real estate agents put up their own Web listing service. Acting under contract with the National Association of Realtors, RealSelect Inc., in Thousand Oaks, Calif., opened Realtor.com in 1996. This site lists 1.3 million homes, or about 95% of the existing for-sale inventory in the U.S. Realtor.com, which is 15% owned by NAR, takes no piece of the agents' commissions if an on-line buyer ends up at their door. It does charge for advertising an agent's home page. Microsoft, playing second fiddle, offers agents free photos and links as a way of enticing them to provide HomeAdvisor with listings. And still it has not even half the listing volume.

"Because the industry set the standard, other real estate Internet sites have got to follow our business model—otherwise the industry isn't interested in working with them," brags NAR Presi nt Sharon Millett. Tra la- tion: Don't mess wit our 6% commissions.

RealSelect Chair an Stuart Wolff, a forme Interactive executiv is now battling Micro ft and a host of other al estate home listing sit to make sure NAR rem ns dominant. He rec ly got a boost from ven re capitalist John Doe r Kleiner Perkins Cau fd & Byers, who investe undisclosed amoun in RealSelect and took a on the company's bo rd. "The incumbent s every time if they et aggressive," cont lls Wolff. "The winning h in real estate is to par r with the industry."

The brokers see n ing wrong with techn gy so long as it does cut into their commis flow. Barbara Corco chairman of the Corc Group, a real estate brokerage in M hattan, says she generated $61 mil n of her more than $1.3 billion in t 1998 sales off her Web site, wh shows 3,000 home listings in the N York City area. The site, which cost l million to put together, was a g investment. Buyers who have peru Internet listings typically need to only 4 or 5 properties, Corcoran s as opposed to the 20 that non-Inter shoppers view.

Not far from Microsoft's co pound in Redmond, Wash., real es broker J. Lennox Scott chortles t the Internet is making it easier th ever to latch on to potential ho buyers. "The Internet just speeds the process," he boasts. "It matu the conversation between the ag and the buyer." Scott charges 2,300 real estate agents $20 a mo for connection to his Web site, a hour messaging system and e-m that enables the agents to immedia ly hound prospective buyers with latest listings. Seems that the m technology there is, the more business as usual.

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Horace Hagedorn likes to get involved in the minutiae of business and in the minutiae of charity.

Putting Miracle-Gro on kids

By Thomas Jaffe

MICHAEL J.N. BOWLES

HE'S 83 AND SUPPOSEDLY retired, it nearly every day Horace Haged goes to the headquarters of Mira Gro in Port Washington, N.Y. 'o this day I can still write ad copy match anybody in the business,' boasts.

Hagedorn is the marketing w who turned a water-soluble ph fertilizer into what is today a fixt in the gardening universe. He and family sold Miracle-Gro to the Sc Co. in 1995 for $200 million stock. Of that, Hagedorn dona $48 million to charity. Some ot benefactor could have written a ch out to a university or a hosp and had a building named for h

Not this guy. He li to get his hands di He arranged for th millions to go to New York Commu Trust over a five-y period (but the deduction was imme ate). Hagedorn involving himself how every pe is spent.

Common then children. Among t beneficiaries are Ch dren's House, whi runs shelters homeless or abus teens, and a cleft pal clinic on New Yor Long Island. "I thi I focus on childr because I have 6 my own—and grandchildren," sa Hagedorn.

In 1991, wh Hagedorn had t operating profits fr the fertilizer busin but not the s proceeds to play wit he and his fam started a program put 50 disadvantag fifth-graders fro Brooklyn, N.Y. throu

Hagedorn, with wife Amy, day care center he suppo

Fertilizing young lives.

Vito Palermo, Senior V.P. & CFO
Metawave Communications, Inc.

How J.D.Edwards SCOREx is helping Metawave give cellular operators more airtime.

The cell phone business keeps Metawave hopping. They've ne from startup to star by supplying cellular ants with vital technology that packs more lls into limited airtime.

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J.D.Edwards SCOREx is easy to install, too. Integration partner Ernst & Young took Metawave from zero to sixty in less than six months. For Metawave CFO Vito Palermo, the biggest improvement has been in responding to customer requirements. "J.D.Edwards SCOREx has given us the ability to be responsive to the dynamic changes in the global wireless communications market," says Palermo. That's how it ought to be. It can be for you, too. To find out more, call 1-800-727-5333 or see www.jdedwards.com/customer.

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college. Grades didn't matter. What mattered was that their parents agreed to stick with the program for at least eight years. Miracle-Gro money paid for counseling, tutoring and social services.

Of the original 50 kids, 40 (now high school seniors) remain in the program, and many of them are going to college. The program has set aside $3 million for their tuitions.

A few years ago Hagedorn asked a Long Island school superintendent to identify poor kids who were so smart that they were slacking off because they found their studies a bore. He was introduced to three such underachievers, and is now paying their way at a private school, where all are doing splendidly.

This bit of fertilizing doesn't work all the time. Once, he recalls, he underwrote the private school education of a bright but poor kid from near where he lives on Long Island. Alas, the charity didn't solve the kid's problems at home, and the overwhelmed youngster eventually re-entered a public middle school.

The Hagedorn family pays for 600 or so poor kids a year from New York to visit an 800-acre dairy farm in Vermont, where Hagedorn's son, James, runs the show. He's the number two executive at Scotts and owns a home next to the farm.

One Hagedorn program will put dozens of poor kids from Brooklyn through college.

"I was a city kid myself," recalls the elder Hagedorn. "I had no idea where strawberries grew. I thought maybe they came on bushes."

Hagedorn graduated from the University of Pennsylvania in 1936, sold radio advertising time, worked at ad agencies and developed *The Big Story*—a show based on true stories by reporters—that became a hit, first on radio, then on early TV.

While the royalties from the show rolled in, Hagedorn kept his hand advertising, landing, among othe a small account from a businessm that would ultimately make him ric He was Otto Stern, who ran a pla nursery in upstate New York and h a mail-order business.

Before long, they became par ners. A Rutgers University profess came up with the soluble fertiliz formula. Hagedorn, of course, can up with the Miracle-Gro name—ar by that time had 26 years' worth ad copywriting experience to sell t stuff. Stern sold out to Hagedor in 1984.

Hagedorn has help from his fami in handing out the dollars, but h personally interviews charity admi istrators, scrutinizes reports and fi ings and takes field trips. One suc visit was to a Long Island branch Hospice, a service for the terminal ill. "How do you reach a 10-year-o child who's lost her mother?" h reflects. "That kind of stuff tea your heart." Hospice got an imm diate $10,000. ■

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up & COMERS

Debt, mismanagement and scandal nearly destroyed American Locker Group during its first century. Now it's back—and facing new hurdles.

Indestructible

By William P. Barrett

IF ENTREPRENEURIAL COMPANIES have nine lives, American Locker Group has already used up eight of them.

On the face of it, this 104-year-old supplier of lockers and apartment-house mailboxes is on a tear. Over the past five years it has racked up a 28% average return on equity along with earnings-per-share growth of 64% a year—enough to vault it to the number one spot on the list of Forbes 200 Best Small Companies in America *(Nov. 2, 1998)*. The stock has risen twentyfold to a recent $22.

But maintaining those growth rates won't be easy. Jamestown, N.Y.-based American Locker has tied its fortunes to a single client—the U.S. Postal Service, which accounts for nearly 70% of its estimated $50 million in 1998 revenue. The company's baby-faced president, Roy Glosser, professes not to be worried. "You know they're good for the money," he says, pointing out that he is spreading his risk among 85 district offices of the USPS, rather than a central, national buyer.

American Locker apparently has no patent protection for its meal ticket—the virtually indestructible plastic postal cluster boxes for housing developments and apartments. The company faces serious competition from Cutler Manufacturing Corp. of Eaton Park, Fla. and Auth-Florence of Glendale Heights, Ill. An economic downturn would slow housing starts and, thus, demand for new mailboxes.

Still, the company has long been a stepchild of adversity and has endured. Founded in 1895 as U.S. Voting Machine Co. to exploit Thomas Edison's pioneering invention to make elections more honest, the company plodded along for decades and was sold to Rockwell International. Spun off in the 1960s and renamed Automatic Voting Machine Corp., the company went on a buying binge. In the heyday of conglomerates AVM had 15 divisions, making everything from auto parts and furniture to air-conditioning compone[illegible].

AVM nearly went under in the 1970s, after a federal grand jury indicted its president for bribery and proxy fraud. He resigned in disgrace before serving time. Then Venezuela abruptly canceled a huge voting machine contract, but only after AVM had borrowed to the hilt to tool up for the orc

That's when the board recruited an unlikely savior: labor union economist Harold Ruttenberg, who suspe ed the dividend and sold seven divisions—including vot machines —to raise cash while negotiating new terms w lenders. Still, AVM didn't fully come out of its funk u 1989, when revenues hit bottom at $10 million.

The one remaining division of American Locker Gro as Ruttenberg renamed the company, was the natio leading maker of storage lockers for businesses and rec ational locations. To cut capital costs, Ruttenberg farm out more and more of the manufacturing to nearby co panies with surplus capacity. Today American Locker h only 120 workers, and rents almost everything. Th includes the dingy two-story building on the edge of tow that houses headquarters, factory and warehouse und one roof.

Ruttenberg focused on new markets. Schools weren worth the bureaucratic hassle. American Locker stopped se ing lockers to bus stations and airports after it was sued fo lowing the 1975 explosion of a terrorist bomb that may ha been left in a locker at New York's LaGuardia Airport. Ru tenberg saw opportunity in lockers for police to store ev dence, and in lockers that hold ski gear at winter resorts.

And, of course, there were also outdoor mailbox cluste

DARREN MOORICKER

Laurels? Sure. But no time to rest on them: Glosser and Edward Ruttenber

ner than use traditional aluminum units, which pit over e and can be damaged by vandals, American Locker eloped a box made of high-quality molded tic with stainless steel fittings; it farmed out the nufacturing.

uttenberg died last summer at the age of 84. So far been a smooth transition: His replacement as chief executive is his eldest son, Edward, 52, a former rabbi who worked as a company salesman in the 1980s. He's already got his hands full figuring out how to diversify his client base.

There's a lot at stake besides his dad's reputation—the Ruttenberg family's 33% share of the company. That was recently worth about $18 million. ■

COMERS

tcentives had a solid idea and a nice chunk of ven- e capital. What it didn't have was seasoned advice.

Wanted: coaches

Amy Doan

RTUPS NEED experienced hands. can hire them, rent them, offer m a seat on your board, or—as c Tilenius and Elliott Ng did—row them for six months. Unlike ny young entrepreneurs, the nders of San Francisco-based Net- tives Inc. didn't have to begging. Instead, they cre- d a stock program specifi- y for mentors.

Netcentives is in the busi- s of using frequent-flier es to promote products on Web. The Web is new, but esmanship is old and so tcentives' founders figured y needed some experts to k to. How to get them? enius and Ng decided to their lieutenants do the ruiting. To each of the first ht of their senior employ- , they distributed chits rep- enting extra shares in Net- tives. With the extra stock, se employees could lure y mentor they wanted, sub- t to board approval, in urn for five hours each month of nfidential advice for half a year. e're not talking peanuts here. The ue of the stock set aside for men- rs ranged from about $10,000 to 00,000 apiece, according to Net- tives' $75 million valuation as of ne 1998.

Tilenius and Ng knew they had a able idea when they started Net- tives in June 1996: offer frequent- r miles as an incentive for people to shop over the Internet. They had little trouble attracting 50 companies, from 1-800-FLOWERS to E*Trade and barnesandnoble.com, which pay $25,000 to $100,000 a month for placing a logo on Netcentives' site and sending promotional e-mails to the nearly 1 million shoppers who receive frequent-flier miles for their purchases. (Example: Buy three CDs from the Music Boulevard Network and get 100 free air miles.)

ERIC MILLETTE

Putting a price on mentors: Shell, Ng and Tilenius.

U.S. airlines liked the idea, too. The top seven have signed exclusive agreements to sell miles for about 2 cents apiece, which Netcentives resells to the merchants for 3 cents.

Venture capitalists found the concept promising, and thought that Tilenius and Ng—then 28 and 27—showed unusual maturity and pragmatism, exemplified by the mentor program. "We liked the fact that they'd thrown out moorings in all the right industries," says Roger McNamee, a partner at Integral Capital, which, along with first-round investors Mayfield Fund and New Enterprise Associates, chipped in nearly $29 million for more than 50% of Netcentives.

Who's taken advantage of mentorship? Each of the original eight. Kristin Murphy, then Netcentives' director of service operations, hooked up with Dickson Chu, a former vice president at Wells Fargo Bank, whom she'd met earlier at a friend's cabin in the Sierras. They had discussed supply chain integration—jargon for coordinating with vendors to boost customer service—over barbecued ribs. Now he was advising her on how to automate Netcentives' customer-response system and save $140,000 in selecting a call-routing program. Having a mentor not only solved problems but also helped boost self-confidence. "It let me march into a presentation without 'ums' or 'maybes,'" says Murphy.

Security architect Kevin Rowney, 34, says the mentor program eased his fears about joining a "crazy startup." When he sent out his résumé more than two years ago, he was looking for a job at a big Silicon Valley software company. Scrappy little Web outfits were not on his mailing list. But the adviser program changed his mind. He signed on, and a week later called Steven Harari, a former boss and a systems integration consultant, and asked him to be his mentor. Every week over coffee or through e-mail, Harari walked Rowney through

issues big and small, from global encryption standards to how to predict when a new client's e-commerce software would start working with Netcentives' program.

The "little mentorship thing" Tilenius dreamt up has had an unexpected dividend. The program has helped create a web of allies for Netcentives at the mentors' workplaces—including Visa and Intuit. Wells Fargo became a client, giving customers 1,000 miles for signing up for on-line banking and bill payment.

Still, Tilenius and Ng admit the program is no substitute for experienced staffers. Last summer the board brought in as president West Shell III, founder of Highway C Communications and a marketi veteran at Grey Advertising. H help Netcentives expand from f quent-flier incentive programs ir specialized promotions for clients l Web portals and automakers. T founders hope to break even this y on revenues of $12 million.

▶ up & COMERS

Paul Eckhoff has developed a great way to turn toxic waste into nonpolluting gases. All he needs is a little R&D money.

Hot stuff

By Doug Donovan

A garbage man for the 21st century: Plasma's Eckhoff.

ON A RECENT WINTRY MORNING in Hudson, N.Y., 125 miles north of Manhattan, Paul Eckhoff is demonstrating a device that turns hazardous medical waste into relatively harmless gases. A restless 77-year-old entrepreneur, Eckhoff has spent the last three years developing a plasma-torch vaporizer, in the hopes of selling hospitals an environmentally safe way to dispose of infectious waste.

The plasma in question has nothing to do with blood. It's a high-temperature gas, brighter than a welder's flame, created when argon, then air, is fed through a tiny gap between two copper electrodes. These electrodes are charged with a 300-kilowatt burst of energy from the nearby Chittenden Falls Hydroelectric Plant—great enough to power 150 homes. The plasma passes into a furnace, now at a scorching 10,000 degrees.

Eckhoff's system isn't much to look at—a lot of hardware strung together by pipes and hoses, housed in two trailers. A mechanical arm slides a 2-cubic-foot box of medical waste—everything from body tissue to tongue depressors—toward an 8-foot-long stainless-steel asbestos-lined furnace, and the door is shut. Within a few seconds, the plasma torch vaporizes the waste into gases, which shoot through a pipe connected to the second trailer, where they're cooled, then sprayed with lye to neutralize hydrochloric acid. Any steam condenses; the remaining gases enter a boiler and are oxidized, then released through a smokestack as harmless carbon dioxide plus small and legally acceptable doses of carbon monoxide and nitrogen oxide. Elapsed time: about a minute.

The New York State Energy Research & Development Authority has been so impressed it has invested $280,000 in the project. That's on top of the $600,000 and 2,000 hours of time that Eckhoff and two partners have contributed.

But Eckhoff needs at least another million dollars to build the mobile system he originally envisioned—for hospitals. "New York now ships its medical waste to Ohio for disposal," he says. "That won't last forever; the state needs an environmentally friendly alternative." He aims to s single, 53-foot-long trailers that can be driven to and pe manently parked on hospital grounds or set up at a landf site. The system can handle 3 tons of waste a day, he sa at an operating cost of 20 cents a pound. He predicts th he could sell the disposal unit for $1.5 million.

Portability and price, not technology, are what disti guish Eckhoff's Plasma Pyrolysis Systems Inc. from t competition. Plasmonix LLC, of Ardsley, N.Y., has deve oped a $5 million device that can dispose of 25 tons waste a day. It has no customers yet; its estimated opera ing cost per pound is 45 cents—nearly twice what it no costs New York hospitals to dump their waste in Ohio.

Eckhoff, who has an M.B.A. from Harvard and a la degree from Duke, can't be dismissed as a crackpot. For years ago he founded an experimental paint resin manufa turing company on New York's Long Island, and made h fortune by selling it in the late 1970s to the old Intern tional Minerals & Chemicals, now IMC Global. His passic for natural power led him in 1979 to a dilapidated hydr electric plant overlooking Kinderhook Creek near Hudso N.Y., 3 miles from the Hudson River. He rebuilt the st tion and opened for business in 1981, selling hydroelectr energy to Niagara Mohawk Power Co. (His daughter Vic ery writes promotional sections at FORBES.)

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Now it's a matter of convincing the state, venture capitalists and hospitals to loosen the purse strings—before he's aced out by a bigger company.

Eckhoff knows how to improvise. During the demo, one of the pipes bursts because of an overnight freeze. A pillar of steam blasts 20 feet into the air, sending his partners scra bling. But Eckhoff calmly grabs a steam whistle he owns a happily holds it over the hissing plume to hear it howl.

"All aboard," he yells in jest. Alas, that's not where t investors are just yet. ■

starting your own BUSINESS

The label says "Cuba's First Beer." But what Manny Portuondo is really selling is nostalgia.

Here's to the past!

By Scott McCormack

SALSA MUSIC SPILLS OUT into the warm night from the Rancho Grande bar in the heart of south Florida's Cuban community. As the crowd sways to the beat, Manuel Portuondo leans against the bar and studies each table. Next to the plates of fried plantains and bottles of Corona and Budweiser, he eyes his prize—six empty green bottles of La Tropical beer at a table of twenty-something Cuban-Americans.

"They're exactly the demographic I'm looking for," shouts Portuondo above the music. "They've probably heard about La Tropical from their grandparents since they were little."

MARK LAWRENCE

Portuondo, 32, isn't so much selling beer as he is Cuban nostalgia in a bottle. The brew has a 111-year-old name that carries brand recognition—and a lot of memories—to its target market of the 1.4 million Hispanics in south Florida. That's some insurance against the high mortality rate of new beers; as many as 100 flop each year.

In two months La Tropical has sold 20,000 cases. It's available in 90% of the supermarkets and bodegas and half the bars and restaurants catering to the area's Cubans—deep penetration for a beer without marketing muscle.

The original Cerveza La Tropical was founded in 1888 by the Blanco Herrera family in Havana. It was the island's leading brewery until Castro confiscated it in 1960. The Blanco Herreras fled to the U.S. and never reentered the beer business. While Cuba still produces La Tropical domestically—it's sold in U.S.-dollar-only tourist joints—the U.S. trademark fell into disuse until Portuondo, a one-time marketing manager for Anheuser-Busch, came across it last year.

"I couldn't believe no one had ever tried to re-create La Tropical here," says Portuondo, whose father took part in the failed Bay of Pigs invasion and was imprisoned by the Castro regime for several years before being released.

Portuondo negotiated a $2,500 option on the trademark, with 30 days to come up with the $50,000 purchase price (plus a percentage of future sales capped at $75,000). He needed not just financial backing, but investors who could offer critical distribution and strategic advice. "There's a small group of prominent Cubans who've been in the beverage business for years," says Portuondo. "They're old enough to have grown up with La Tropical."

He raised $700,000 from three investors, keeping a majority of t company for himself. His initial back was Juan Galan, a former Miller be distributor who has launched oth successful imported beers in the U Galan brought in as an investor Ram Blanco Herrera, a descendant of t original brewery's owners. In additi to a trove of old memorabilia—

Tropical bottles, labels ("

Primera Cerveza Cubana Cuba's first beer), photograph lots of folklore—the fam brought Portuondo the origin beer recipe and put him in tou with the former brewmaster La Tropical, 82-year-old Jul Fernandez Selles. Portuondo al convinced Gold Coast Beve ages, the largest beer distribut in Florida, to carry La Tropica

Portuondo expects sales to $1.5 million this year. Becau he's positioned La Tropical a premium import—the fine pri says it's brewed in Tampa, Fl (by Stroh Brewing Co.)—a si pack costs $5.79 to $5.99, nea 30% more than Budweiser. Th should keep first-year losses $100,000. As a contract brewer, he h little overhead. His real cost is marke ing, pushing fellow Cuban-America to drink a taste of old Havana.

That much appears to be workin His distributor reports that some 60 of purchases are now from repeat cu tomers, a key factor for brand stayi power. The real test comes next ye when Portuondo tries to expan beyond his core Cuban-America market. As his model, he looks Mexico's Corona, which first gain popularity among Mexican-America and then other Hispanics before gai ing chic status among young urbanite

A tough act. Corona arrived befo a flood of Latin beers hit U.S. shelve and it had the deep pockets of a mul national brewery to get it around. Tropical will have to rely largely word of mouth to become more th just another niche beer. ■

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UNITED STATES POSTAL SERVICE®

What's dragging down the Japanese economy? One big contributor: a boondoggle-prone, corrupt, gangster-ridden construction sector.

Japan's cement shoes

By Benjamin Fulford

EVERYBODY BLAMES JAPAN'S TORPOR on the banking crisis. There's another villain: the corrupt, inefficient construction sector. As much as bank insolvencies, this may explain why the government has failed to restart the economy despite spending over $3.5 trillion on public works since 1991. A large chunk of that $3.5 trillion was wasted on useless and overpriced projects, like an ersatz peninsula in Tokyo Bay. It was wasted because Japan is prey to an institutionalized system of graft, linking politicians, bureaucrats, gangsters and construction firms.

Construction trades employ 6.9 million people, or 10.4% of Japan's work force, close to double the percentage in the U.S. Over 2 million of those jobs are not economically justifiable, says the Dai-Ichi Life Research Institute. With 4% of the land area and roughly half the population of the U.S., Japan spends 37% more in absolute terms than the U.S. on its public works. One last-

Masaru Takumi's funeral
Gang boss was killed for not sharing loot from Kansai Airport.

ing monument is a $5.4 trillion public debt that will soon become the industrialized world's largest, relative to GDP.

In addition to building unneeded rural highways, bridges and seaports, this largesse has the more sinister purpose of paying off gangsters. These goodfellas—*yakuza*, in Japanese—serve as combination protection racketeers, dispute resolvers, hiring-hall foremen and lobbyists for the industry.

"Originally, most Japanese construction companies were similar to *yakuza* gangs," concedes Michikazu Ozawa of the Japan Construction Industry Research Institute and a former official of the construction ministry. Indeed, co struction outfits in Japan are often called *kumi*, wh means gang or organization.

The original *kumi* were groups of men displaced World War II who worked for a gang boss doing whate odd, dirty jobs were available. "After the war there w battles between construction companies that were so the police were afraid to intervene," Ozawa says.

"A bid-rigging system [which persists to this day] w set up to stop these fights," says another retired co struction ministry official. Sporting a diamond-studd Rolex watch not likely to have been bought on his pu lic servant's pay, the official explains that building fir now take turns winning bids—often awarded by his f

mer agency—in a civilized manner.

Kansai International Airport near Osaka, opened 1994 following a trade dispute over the exclusion of U contractors, was a $14 billion plum—and a cash cow the Yamaguchi Gumi, Japan's largest *yakuza* gang, pol and gang sources say. Hitoshi Yamada, gang expert for t Japan Bar Association, estimates that "probably 30%

Waste includes huge, underused bridges, needless draining of bays, and airports for produce that would be faster to truck to market. In Tokyo's Rainbow Town (lower right) architectural excesses rise in a $31 billion landfill project.

% of public works projects in Japan now involve payoffs gangs, and these vary from about 2% to 5% of the total nstruction cost."

The construction companies themselves take a much ger cut. Public works in Japan are about 20% more pensive than private-sector work and about 45% more pensive than public works in, say, New York.

Ryuichi Suzuki, the mayor of small Kobuchisawa in manashi Prefecture, says he cut the cost of public works his town by 15% when he began using what he described the only cheatproof public works bidding system in pan. So far no other town has emulated this, Suzuki says.

The more familiar system works as follows. Every year ring budget season politicians loyal to the industry and icials from the ministries of finance and construction cide how to divvy up the pie, often at late-night meetgs in exotic clubs (the industry spends $11 billion a year "entertainment").

These companies also allow politicians to use their staff "volunteers" during election campaigns, and provide ner favors although not usually anything as crude as an velope full of cash. The biggest beneficiary by far is the ing Liberal Democratic Party.

Bureaucrats at the construction ministry also benefit, ually in the form of highly lucrative post-retirement bs at construction companies, where as "advisers" they e given a car and driver but rarely have to show up for ork. Teikoku Databank, a corporate research outfit, und that 17.5% of the top executives at 100 construcon companies it surveyed in 1995 were former governent officials.

One result is the $28.5 billion spent to build three giant spans (including the world's largest hanging bridge) to link the rural island of Shikoku with the main Japanese island—never mind that traffic patterns suggested the need for only one bridge. Then there are unused fishing ports, such as one in Chiba Prefecture built at a cost of $3 million for the benefit of one boat.

Metro regions get into the act. Rainbow Town is a 1,092-acre, $31 billion artificial peninsula in Tokyo Bay filled with fantastically shaped but largely empty office buildings and serviced by a specialized mass-transit line that connects to no other rail line in Tokyo. A sort of Canary-Wharf-on-hallucinogens, the project has devastated the financial health of the city of Tokyo.

Most of the excess occurs in rural areas because that's where LDP politicians hail from. Rural voters in Japan enjoy a vastly disproportionate share of representation—the LDP naturally sees to that. A visitor to the countryside will find new roads that simply peter out, empty community centers and paved mountainsides, amid other waste.

Meanwhile, in the cities traffic jams confound Japan's famous just-in-time inventory system by trapping delivery vehicles, causing $110 billion worth of lost production every year.

Naohiko Jinno, economist at the University of Tokyo, describes public works as a massive welfare project. "In Europe they give people unemployment benefits; in Japan they give them construction jobs," he says.

Doesn't this at least put money in people's pockets that, when spent, can goose the economy? Maybe, but the latest bout of deficit spending has spiked long-term interest rates, which will drag down economic growth.

Problems in the construction sector, then, are like problems in banking, in an inefficient retail sector and in industries that haven't figured out how to downsize. They are damaging to the economy, and they aren't going away overnight. In short, don't expect Japan to snap out of its malaise.

By Thomas Sowell

My overreaching PC

The 486 was the high-water mark of my relationship with computers. Never again would I be so satisfied.

ALTHOUGH I HAVE BEEN USING a personal computer for less than a decade, I have still seen several generations of PCs come and go. My first PC, back in 1991, was an 8088 laptop with 20 megabytes of hard disk space. Today, you couldn't even install an operating system with that.

My wife was more advanced than I was at that point. She had a 286 computer. I could tell that everything worked faster on her machine. Eventually, I leap-frogged up to a 386 desktop computer, which seemed incredibly fast.

Just when I thought technology had reached its limit, the 486 computer came out and I got a desktop and then a laptop. Programs that took half an hour to install before could now be installed in 10 minutes. When I turned on the computer, Windows 3.1 flashed onto the screen immediately. When I used my word-processing program—WordPerfect 5.1 for DOS—its timed backups took place so fast that you could barely see the "please wait" notice before it was gone. You could keep typing right through it because you couldn't type fast enough to interfere with it.

By now I was discovering that you could do more than word-processing with computers. I loved a street map program that enabled me to simply type in an address and get a map showing where that address was located. There was a corresponding highway map program that showed you how to get from one city to another. All you had to do was type in the names of the cities and it told you the rest.

There was so much storage space on the hard disk that I could install street maps for a couple of dozen cities in my desktop. Even on my laptop, there was enough hard disk space for a few key cities to be permanently stored. When I went to another city, I would just install that city's map for the duration of the trip.

This was the high-water mark of my relationship with computers. Never before had I been so satisfied—and never again.

Like a mythical character in an old fable, I did not know when to leave well enough alone. I tempted the gods by trying to go too far. I bought a Pentium computer with Windows 95.

Since a 486 had been so much faster tha a 386 or a 286—I tried to forget that I hac ever used an 8088—my expectation was that everything would also go faster and better with a Pentium.

Wrong. Windows 95 took forever to boo up. My computer guru explained that this was because it had so many more programs with so many more elaborate features—pro grams and features that I never used. Some of my old programs wouldn't even run any more and had to be discarded.

WordPerfect 5.1 started crashing repeatec ly. I installed WordPerfect 6.1 for Windows, but found it not nearly as convenient for my purposes, nor as easy on the eyes. It too was loaded with features that I never used.

After numerous tweakings of the system by my computer guru, we finally got Word Perfect 5.1 to the point where it would usu ally operate all right, if you didn't get too fancy with it or speak unkindly to it. But now when WordPerfect 5.1 had timed back ups, the warning "please wait" was so slow that I actually had to wait.

My old simple and reliable tape backup system was superseded by a new cartridge "one-step" backup system that could never be operated in one step, if it could be operated at all. It too had a ton of new features that I did not need, but which I had to plow through in order to use the features that I did need. Heaven help me if I had to restore something.

The new street map program was now so elaborate that my printer did not have enough memory to print the maps, even after I finally figured out how to navigate through all the complications introduced by sweeping new arrays of features. However, after I bought a new and more expensive printer, things were almost as good as they had been when I had a 486 computer. But the new highway map program—now on CD-ROM—was so complicated that I simply stopped using it and just carried Triple A paper maps with me instead.

Sadly, I realized that I had gone a PC too far. When I bought a Pentium, I gave my old 486 to a friend. I suppose it would be bad form to ask for it back. ■

Dr. Thomas Sowell is an economist and a senior fellow at the Hoover Institution in Stanford, Calif.

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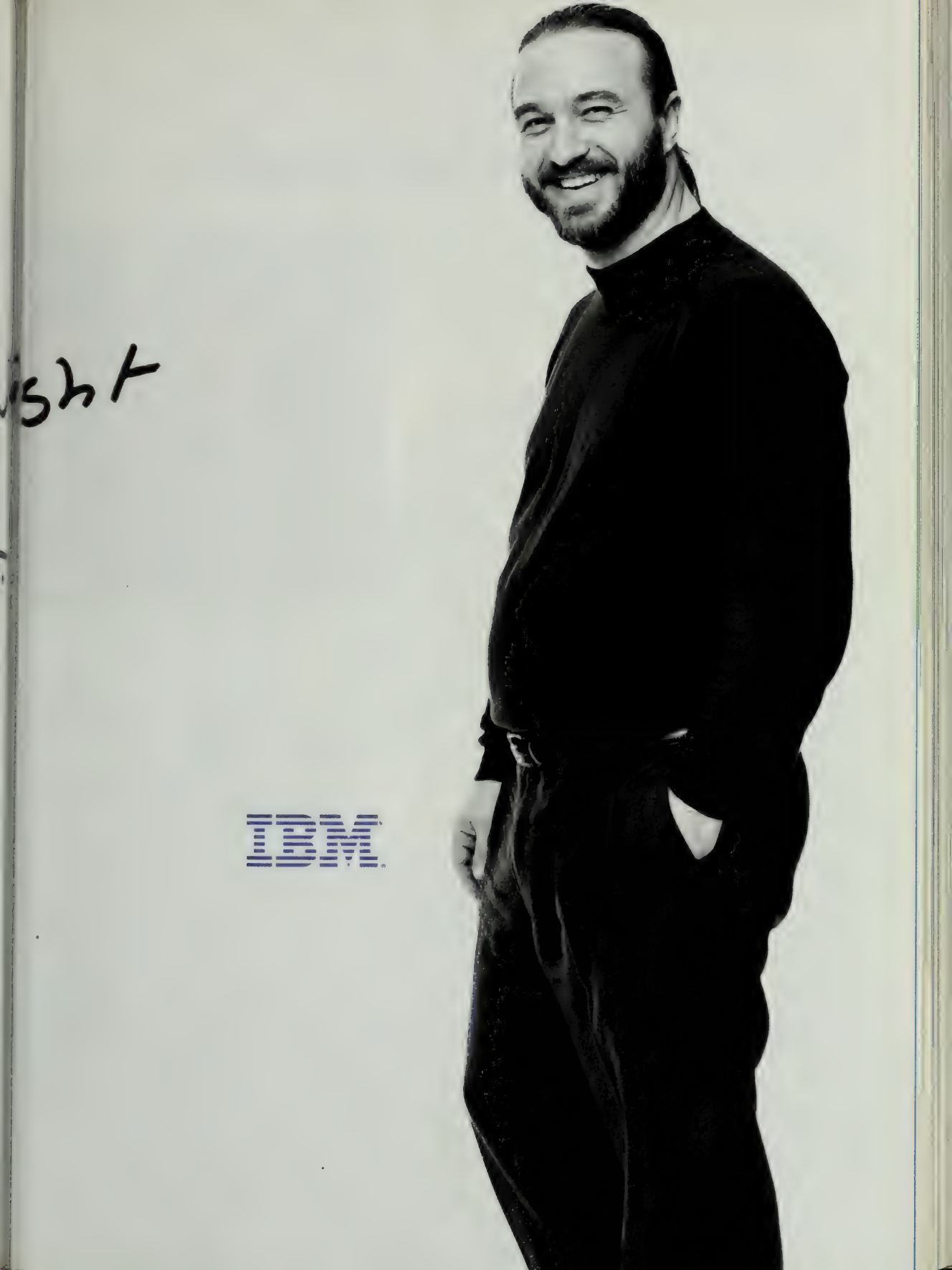

IBM

The newspaper business had glamour and glory. But Harte-Hanks wanted something else.

The unsentimental publisher

By Daniel Fisher

IN THE HOSPITAL and near death in 1972, Houston Harte, the crusty West Texas newspaperman who founded what would become Harte-Hanks, Inc., refused to take a call from his son. He had ordered the hospital switchboard to keep the line open so his stockbroker could update him on the price of Harte-Hanks stock, which had just been offered to the public.

When profits are at stake, there's no room for sentiment at Harte-Hanks. Once one of the largest U.S. newspaper publishers, with 27 dailies, Harte-Hanks sold off every last one of them over the past ten years without hesitation—even Harte's beloved *San Angelo Standard-Times*—to invest in the faster-growing business of direct marketing.

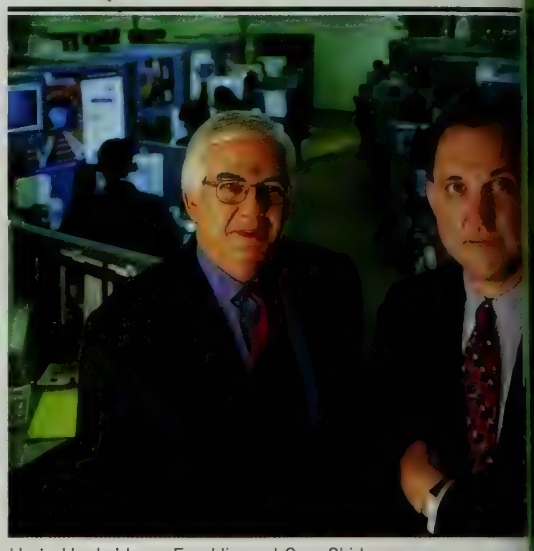
"The newspaper business is a profitable business, but there's no growth," says Larry Franklin, chief executive of the San Antonio-based company. "The growth rates are significantly higher in the targeted media."

Computer-database technology developed in the 1970s and 1980s gave advertisers the ability to target individual consumers with their message, bypassing newspapers entirely. The Internet has only accelerated the process, making highly targeted direct-marketing campaigns as simple as a mouse-click.

Harte-Hanks bought its first database marketing company in 1979 for $5.5 million, although it still derives about 10% of its revenues ($790 million last year) from the distinctly low-tech end of the business—sending out billions of pieces of junk mail each year on behalf of clients such as Sears, Roebuck & Co. and Wachovia Corp. One of the largest single-piece mailers outside of the U.S. government, Harte-Hanks also operates a chain of weekly shoppers, the last connection to its roots as a publisher.

But that's only the beginning. Harte-Hanks also answers the phone when its junk-mail recipients call an 800 number for more information, charging clients $3 to $4 a call. High-tech companies like Sun Microsystems Inc. and 3Com Corp. are also constantly running marketing campaigns aimed at their thousands of corporate customers and independent distributors. These pitches generate thousands of return phone calls: in the case of 3Com alone, up to 60,000 of them a month. If the customer hits the button on a client's Internet site, Harte-Hanks also answers that, for another 75 cents a pop, sending out canned or, in some cases, human-written responses and saving clients from tying up their own people and computer systems. Internet transactions are running at over 600,000 a month and growing fast.

Behind all of the operations are massive computer databases that allow Harte-Hanks to identify customers according to their income, spending patterns and even professional responsibilities. That allows the company to act like a filter for high-tech clients like Motorola, Inc., separating out the tire-kickers from corporate buyers likely to order $1 million worth of equipment.



Harte-Hanks' Larry Franklin and Gary Skidmore
Going from newsprint to the Internet.

"If the data show it's a single bus ness with five PCs, we send them an mail," says Gary Skidmore, preside of Harte-Hanks' response manag ment division in Austin, Tex. "If it' bigger company, maybe we direct phone call their way."

Harte-Hanks has some competito in the high-tech field, includir Japan's Softbank Holdings Inc. ar Boston-based SalesLink Corp. B Harte-Hanks is amply prepared for tl fight. Once burdened with $900 m lion in debt following a 1984 leve aged buyout, the company went publ again in 1993 and sold the last of i newspapers and other assorted med properties to E.W. Scripps Co. in 19 for $790 million. After paying off deb Harte-Hanks was left with $175 mi lion in cash. It will probably use tl money to make acquisitions of firm that do direct-marketing of pharm ceuticals, travel and financial product

Yes, dumping the newspapers was tough decision to make, but nobody Harte-Hanks is shedding any tears. ■

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What's your job-bias liability?

By Dan Seligman

EDWARD BRIANT

THE BATTLEFIELD has shifted in the bias wars. The players are different. The rules of the game have changed. The legal and financial exposure of the corporate sector has soared. Evidence for the foregoing comes in the form of a paper produced recently by two antidiscrimination consultants, James C. Sharf of Employment Risk Advisors and David P. Jones of Aon Consulting. Their analysis is guaranteed to give a lot of managers a case of the willies. It appears as a chapter in a book scheduled to be published later this year by Jossey-Bass: *Managing Selection in Today's Organizations,* a title that does not exactly promise to flutter the heart.

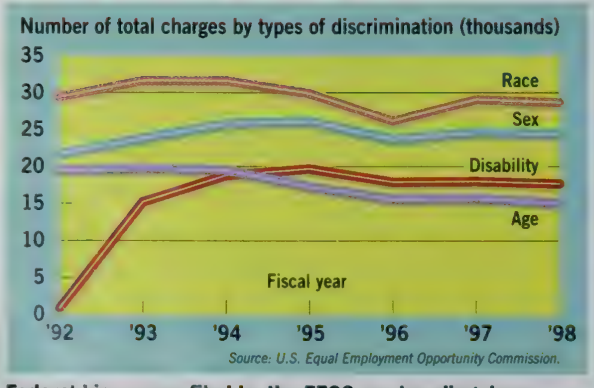
So what exactly has changed? First, ponder the standard-model antidiscrimination suit that employers dealt with in the first quarter-century after the 1964 Civil Rights Act was passed. It typically involved job applicants who had been turned down and claimed they were victims of hiring procedures with an adverse impact on racial minorities or women. They often came into court with statistics designed to prove this impact, and often prevailed even when the employer clearly had no intention of discriminating; what mattered was the effect, not the intent. Such cases were often supported, or initiated, by the federal Equal Employment Opportunity Commission. They were weighed by federal judges, not juries. Companies found guilty of discrimination were liable for back-pay awards, but not for punitive damages.

Several events have combined to transform this familiar scenario. One was the Civil Rights Act of 1991. Rea ing over the contemporan ous arguments about th legislation, one is stru today by how just abo everybody misjudged main effects. The Bu Administration, which su ported the act, pointed various features that work against racial quotas hiring—particularly ti law's ban on "race-norm ing" in employment test (Race-norming adds bon points to the scores of minority jo applicants.) The Democratic Congre that passed the law liked it because reversed Supreme Court decisions th had restricted affirmative action.

The scariest thing of all is that plai tiff lawyers liked the new law. It pr vided, for the first time, th victims of intentional di crimination were entitled jury trials. Sharf and Jon cite results from 199 (latest year for which da are available): Plaintiffs wo 43% of employment-di crimination cases heard b juries but only 22% of cas heard by judges.

The new law also provi ed that plaintiffs who pr vailed were entitled not ju to back pay and reinstat ment but also to compe satory and punitive dan ages. Section 102(b)(3) the act serves up a rath expansive statement of th

They'll get you one way or another



Federal bias cases filed by the EEOC are trending down. But that's little comfort. Common-law tort suits are soaring.

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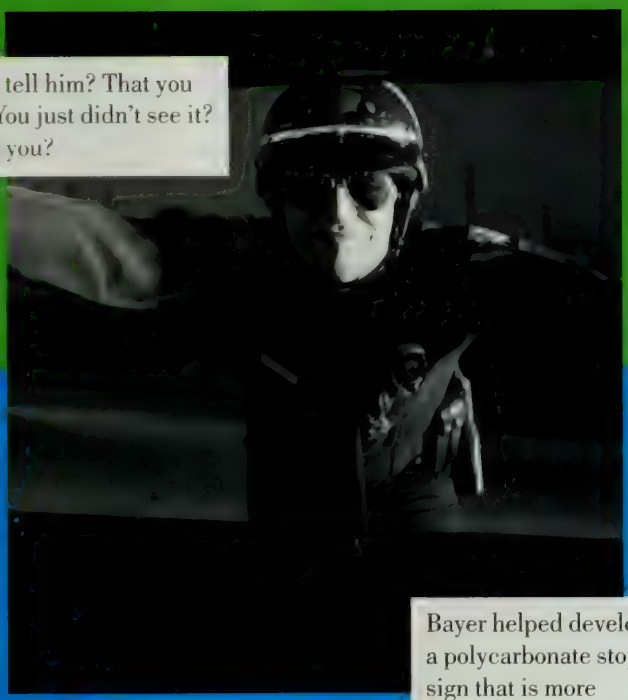

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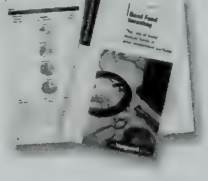

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injuries for which damages might sought. The list includes "emotio pain, suffering, inconvenience, men anguish, [and] loss of enjoyment life." The money now available attra ed huge numbers of contingency-f lawyers.

To be sure, the awards available jury trials were capped at $300,00 But there are ways to get around t cap. One way: Get your case certified a class action. Data for 1995-96, t latest available, suggest that fede courts have been approving about class suits a year on discriminatio Texaco was intimidated into settli such a suit in 1996 for $176 millio for good measure it hired Deval Patrick as its general counsel in Dece ber 1998. Patrick had been an insiste proponent of racial preferences wh he was in President Clinton's justi department. In 1993 Shoney's pa $105 million in another race-base case. Lucky Stores and State Far Insurance settled sex discriminati suits for $107 million and $157 m lion, respectively.

Federal and state antibias laws are all you have to worry about in th context. In recent years companie exposure has come increasingly fro common-law tort claims—from law suits seeking damages not related federal or state legislation. Data su plied by Jury Verdict Research sho that, from 1989 to 1995, lawsui based on common-law damage clain outnumbered all suits based on fede al antidiscrimination laws; th common-law suits represented 57% the total.

David Copus, a former Equ Employment Opportunity Commi sion litigator now with Jones, Da Reavis & Pogue in Washington, D.C has been warning corporate manage about the potential for expansion these common-law claims. Said Copu "Tort theories pose enormous risks f employers because of the increasin creativity of plaintiff lawyers, the appa ent willingness of common-law judg to find ways to permit plaintiffs t recover tort damages, and the esse tially unlimited nature of tort damage The risks from tort liability far exce the risks posed by federal statutory ci rights violations in almost every case.

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THE FUTURE'S RIGHT HERE

Earnings growth at the German software titan SAP isn't what it used to be. Are we seeing a little market saturation—or symptoms of far deeper problems?

Paradise lost

By Stephan Herrera

IT WAS NICE WHILE IT LASTED: ten years of spectacular earnings growth at SAP AG, the German firm that makes enterprise software which automates and synchronizes everything from the accounting department to the warehouse. Between 1993 and 1997, for example, SAP's net income screamed upward from $88 million to $555 million. It was the most dazzling technology success story in Europe. It made Hasso Plattner, a cofounder and the cochairman, who owns a 23% stake, worth some $7 billion at the stock's peak last summer.

And then this winner disappointed. In January it announced a meager 15% gain in pretax income, to $1.15 billion, on sales of $5 billion. And maybe this is no temporary stumble.

SAP, based in Walldorf, Germany, still commands 36% of the enterprise software market, versus 10% for Oracle, its nearest competitor. PeopleSoft and the Dutch firm Baan trail in third and fourth place. Yet the market is changing, and SAP can't seem to change with it.

The company has grown fat on large corporate customers, which alone can handle SAP's famously complex product, called R/3. "Installing R/3 is about as easy as wading through a smelly, three-foot-deep bog," says a longtime SAP analyst. If you run a billion-dollar corporation, you pay the money and you invest the years to get R/3 working. But what if you are running a $250 million corporation?

Now that the market among the largest corporate users is pretty well saturated, sales to smaller companies will have to pick up the slack. But they are reluctant to bend their business practices to the software. They want to do it the other way around, with other, more user-friendly products. PeopleSoft and Baan are prepared to serve them, with installations that might cost as little as $2 million for 1,000 users, rather than the $4 million that SAP was wont to charge, according to Bruce Richardson, an analyst at Boston-based AMR Research.

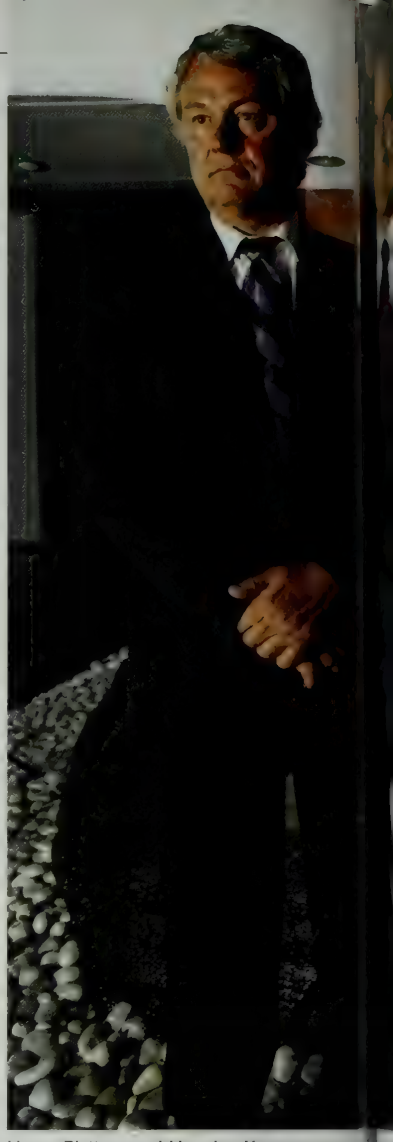
Financial details haven't been released, but it does indeed appear that most of SAP's 40% growth in revenue last year probably came from existing accounts. Analysts suspect growth of new licenses in the fourth quarter was flat.

One reason the falloff is apparent just now is the imminence of the year 2000 bug. Until recently a lot of companies were avoiding the problem by junking old systems in favor of SAP, but it's too late for that now. It can easily take a couple of years to fully implement R/3 for a large company.

To woo smaller companies, SAP issued a less complex version of R/3 in 1995. It was easier to install, all right, but it didn't fit the bill, so SAP scrapped it. The latest fix still has not convinced most of this market to take the plunge. It still perceives SAP as overly complex and inflexible.

The 55-year-old Hasso Plattner, an energetic engineer who still writes software code, concedes not an inch to his rivals. "While they try just to keep their customers up to speed with changing technology, we're going around them because we planned ahead," he says.

Did they? SAP has missed some important developments in its business. Intent on automating back-office functions like inventory and manufacturing, it failed to seize the market for the so-called front office, where everything from customer-service management to sales-force automation is processed. Most of that market is in the hands of two smaller rivals, Siebel Systems and Vantive.



Hasso Plattner and Henning Kagermann
SAP's cochairmen have some work to d

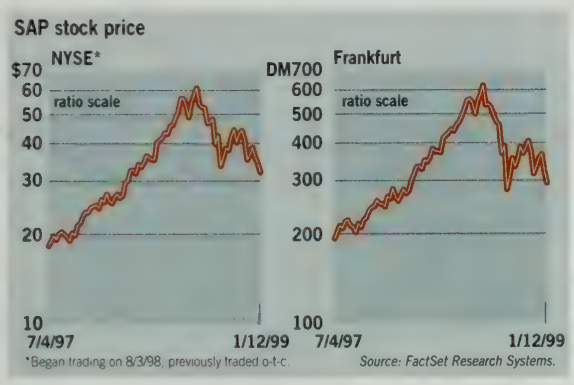
SAP didn't bother to pay prop attention to supply-chain manag ment—the software that links enterprise to its clients and contract or suppliers, enabling Ford, f instance, to order seats and its s supplier to order upholstery, tandem. It could be a $13 billi market in the next few years, but co panies such as i2 Technologies a Manugistics (a rumored takeov target) got into the game before s did, and they hold the whip hand.

With 18,500 employees and offi in more than 50 countries, SAP mig

too big to find any quick solution to
plight. After spending several years
d $50 million on artificial intelli-
nce, for example, SAP scrapped the
ogram. "It seems like we had to
rn our fingers several times before
got the message," Plattner says.
ow that AI seems to finally be work-
g its way into commercial products,
ch as voice-recognition software, SAP
nowhere to be found.

Plattner seems a bit more humble
an he was last spring at a technology
ir in Hannover, Germany, when he
amed SAP's image problems in part
1 the media and later predicted that
would snatch business back from his
mpetitors. "We made some mistakes
id we were slow to fix them, I'll
mit that," Plattner said.

Losing altitude



After screaming to the top of the tech stocks, SAP suffered a triple whammy: trouble in Asia, ever-crafty competition and a sluggish marketplace.

Plattner has made some good moves. A few years ago he decided to make SAP's software platform more accommodating. It was originally designed not to work with the legacy systems already installed. "It was a big problem," says an IT manager at Microsoft. "That left you with two choices: trash your legacy system or pay to have SAP program around it. It wasn't exactly customer-friendly."

SAP still has a hard time acknowledging that R/3 might be too complex for its own good. And that raises another question. Does it promise more than R/3 can deliver? There are some who think so. Witness the $500 million suit filed against SAP last summer by the trustees of FoxMeyer, the bankrupt health care company. FoxMeyer does not say that SAP's software failed, only that it was ill-suited for the company and exacerbated existing problems.

Beyond the scrabbling for market share is a problem afflicting both SAP and its competitors: Where will tomorrow's growth come from?

All these companies have concentrated on high-margin software sales and left the low-margin implementation and maintenance work to outsiders, such as Andersen Consulting, PricewaterhouseCoopers and KPMG. Not only does that throw away about 90% of total revenues, it also puts the vendors at the mercy of contractors. By-the-hour consultants have little incentive to finish the job soon, at a reasonable cost.

SAP decided, rather late in the game, that it had to have more of its own people doing this job. Yet today, only a tenth of the 50,000 consultants working on SAP are on the SAP payroll.

Then there is the matter of how far the outsourcing trend will go. Today it means that a company like Kodak contracts with a consultant like IBM to take over its data-processing department, with all of the equipment and the employees. In such an arrangement the consultant has to buy the same software its client would have bought. In years to come many businesses may not have any big computers on site at all, but will instead link to faraway data-processing centers that will do the computing work for them. Whether that might weaken demand for enterprise software is unclear.

The earnings disappointment in early January sent SAP's shares down 18% on the Frankfurt exchange, where they are most widely traded. Its American Depositary Receipts dropped $2.50, or 7.2%, on the New York Stock Exchange. SAP still trades at 53 times estimated 1999 earnings.

"All of a sudden they seem fallible, which [raises] the question of whether they should be valued at ten times earnings, like a hardware company, instead of off the charts, like an e-company," says AMR analyst Richardson. "The rules are changing in this industry, but SAP has been too vain to do anything about it."

Plattner is fond of saying: "I learned a long time ago that in the technology business, the best time to start fixing something is not after it's broken." He's got the right attitude. But that's not enough in a market that is now looking beyond SAP. ■

That deadliest of cancers, pancreatic, is now sometimes succumbing to medicine. That speaks volumes about where cancer treatment is going.

Stopping a killer

By Alexandra Alger

AMONG CANCERS, nothing kills as surely and swiftly as pancreatic cancer. Of the almost 29,000 Americans diagnosed with the disease in 1998, most will be dead within a year. The five-year survival rate is 4%.

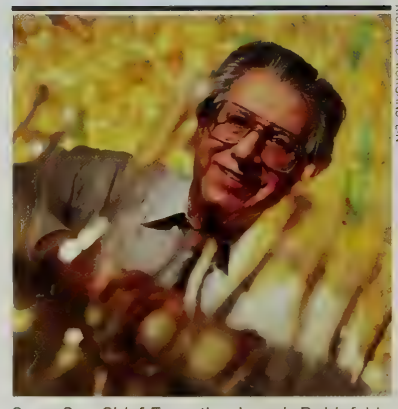
But for the first time new drugs in development show real promise of extending lives while producing much less severe side effects than past treatments. First in line: new chemotherapies. Coming up: experimental vaccines and drugs that target the genetic machinery of pancreatic cancer cells.

"Five years ago pancreatic cancer was a therapeutic wasteland," says Dr. Mace Rothenberg of Vanderbilt University Medical Center in Nashville. "Now there are some exciting things going on for patients."

The pancreas is a 6-inch-long, comma-shaped organ that produces insulin and makes enzymes for digesting fats and proteins. Because it's hidden in the abdomen, alongside the stomach and liver, tumors grow undetected until they're well advanced.

Even when spotted early, the cancer is frighteningly tenacious. Only 20% of tumors can be removed, and in most cases they grow back. Chemo rarely shrinks tumors. The leading drug in this $480 million worldwide market, Eli Lilly's Gemzar, succeeds only in making some patients feel better and extending life by a few months.

New chemo agents, however, have shrunk pancreatic tumors in small-scale human trials, far more than ever before. The most promising entry is 9-nitrocamptothecin, or 9-nc. This is a small molecular variation on camptothecin, a compound from the Chinese tree *camptotheca acuminata* that disrupts cell replication.



RICHARD MORGANSTEIN

SuperGen Chief Executive Joseph Rubinfeld

Seeking to thwart pancreatic cancer.

In one trial of 61 patients on 9-nc, tumor size was reduced in one-third of the cases (by 50% or more in some instances); in another third the drug held tumor growth in check. Among those whose tumors shrank, the median survival was 16 months.

In two men, moreover, 9-nc made tumors disappear. "It's really a miracle," says one of them, Gordon Findlay of Kingwood, Tex. In March 19 he had a tumor the size of a tennis b even after finishing a course of cher and radiation. He started taking 9-n a simple regimen of two pills a d Within five months, his tumor was more than a lump of scar tissu Almost four years later he rema cancer free.

SuperGen, a drug company in S Ramon, Calif., holds the license for nc and has begun late-stage hum trials. If the results hold up, a dr could be on the market in a few yea says Joseph Rubinfeld, chief executi

You have to be a little skeptical, fi because the 9-nc data hasn't be published in a peer-reviewed medi journal. Also, publicly held SuperG is small ($3 million in sales) a untested. It's raised $55 million equity to date—$23 million of it fr Oracle's Larry Ellison—but there's guarantee it won't run out of mon

All that said, there seems to some reason for hope. Dr. Patri Loehrer of Indiana University Medi Center says that 9-nc is "an intrigui drug. If it turns out it can shri tumors, that would be great."

Other experimental drugs atta pancreatic cancer at its genetic roo Merck, Bristol-Myers Squibb, Sch ing-Plough and Johnson & Johnso Janssen unit are testing compoun that target the RAS gene, which pr duces a protein critical to cell divisi A mutant form is found in m human cancers and is believed to p a role in 90% of pancreatic cases.

The new drugs inhibit the action a RAS enzyme, farnesyl transferase, a in mice this approach has halt tumor growth. In safety trials t drugs have been well tolerated. N come efficacy trials.

Another effort: a vacci that wards off recurri cancer. At Johns Hopki University in Baltimore, I Elizabeth Jaffee embe pancreatic tumor ce within a gene that activa immune cells, then inje the concoction into can patients in remission. Wil work? Dr. Jaffee is keepi her fingers crossed. "I humbled at how sick the patients are," she says.

New weapons target a lethal foe

Treatment	Researcher	Effect
9-nc	SuperGen	breaks DNA strands
FT inhibitor	various	blocks key cell-growth enzyme
C-raf kinase inhibitor	Isis Pharmaceuticals	blocks key cell-growth enzyme
Taxotere	Rhône-Poulenc	disrupts cell structure
MGI 114	MGI Pharma	breaks DNA strands
Marimastat	British Biotech	blocks key cell-growth enzyme
vaccine	Johns Hopkins	directs system cells to fight cancer

These drugs are in human efficacy trials.

"It's an unsettling thought, but if every other technology company in the world mysteriously disappeared, we could probably get by on NEC alone."

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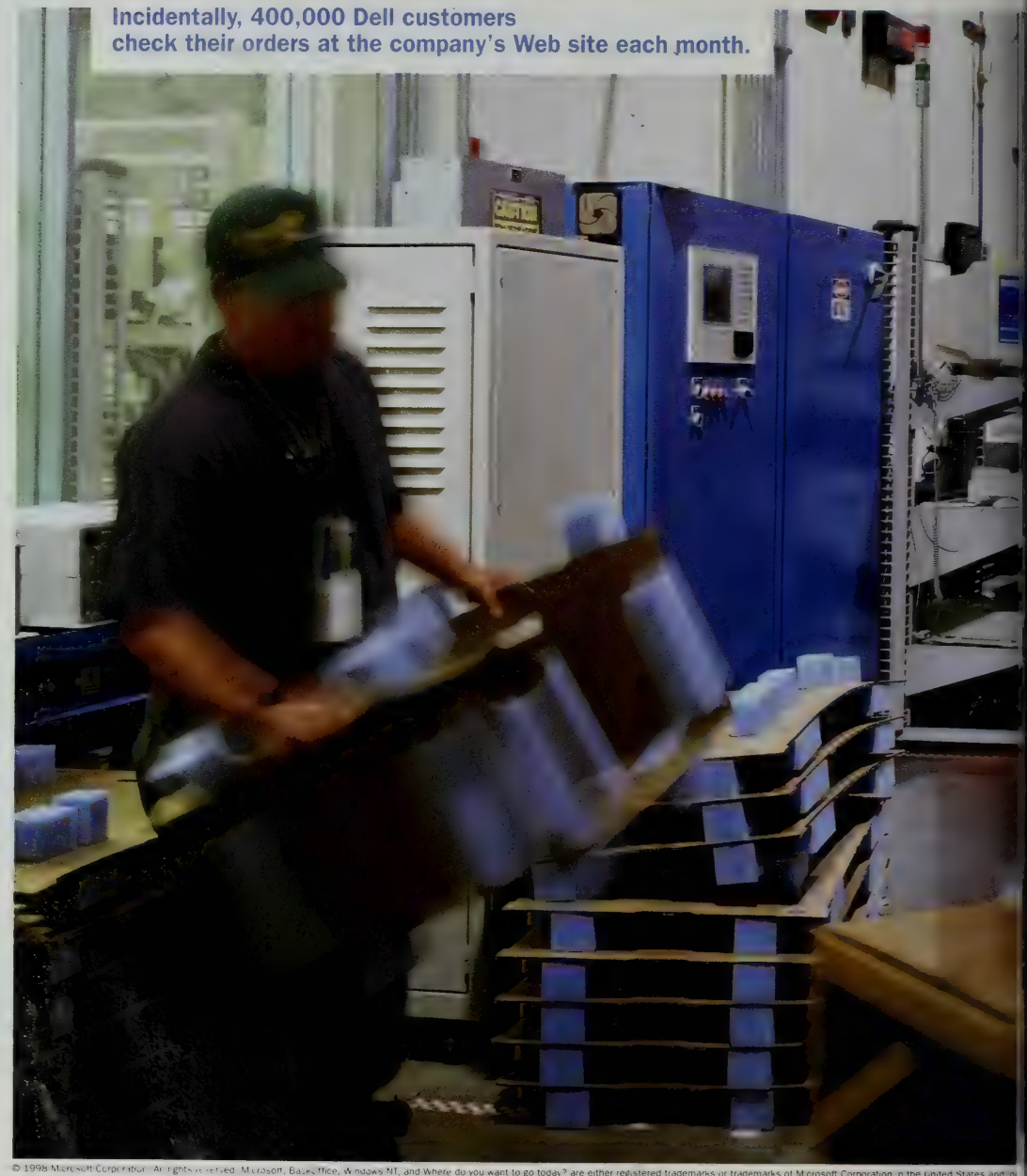

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A British shepherd thinks he's got a good way to protect us from mad cow disease. He may be on to something much bigger.

Counting sheep

By Carleen Hawn

RICHARD WEBBER WORKS a 100-acre sheep farm in Somerset, England and for six years has sold silicon-chip animal I.D. tags. This side business, Shearwell Data, generates $1.2 million in sales annually—enough to keep his farm solvent but not enough to make him rich.

Now it might. Electronic identification for animals has become a big business in Britain, where the land of beefeaters has been terrified since the epidemic of bovine spongiform encephalopathy began in the late 1980s. Mad cow disease, as this illness is popularly known, attacks the brain, producing dementia and death. Although only 30 human deaths have been tentatively linked to contaminated meat, the British cattle industry has been devastated.

A light went on in Webber's head: Why couldn't farmers use the same computer chips he placed in I.D. tags to record the health and nutritional histories of their animals? If the Health Ministry had had such data at its disposal during the crisis, Webber reasoned, it might have saved Britain from indiscriminately slaughtering several million head of cattle.

The British government, known for maintaining one of the strictest animal health standards in the world, put bite into the new regulations for data collecting on cattle by making noncompliance an offense that could lead to jail time. But the British Cattle Movement Service tracks just births, sales and deaths of cat[illegible]. Worse, most farmers record their da[illegible] manually, making the system burden some and fraught with errors.

Webber, 50, a former sheep shearer who left school at 15 to go work on his uncle's farm, is a step ahead. In 1992 he started a database of cattle, sheep and pigs that includes their diets, their drug intake, their genealogies, even the pesticides used on the fields where they graze. And the data is all collected electronically.

JUSTIN LEIGHTON NETWORK SARA

Shepherd-turned-entrepreneur Richard Webber **An Orwellian vision that could make him rich.**

Unlike other electronic I.D. tags, which are usually plastic-encased chips stapled to an animal's ear—where they can easily be removed—microchips for Webber's database are encased in acid-resistant porcelain and inserted in an animal's stomach ten days after birth. The read-only chip is encoded with the anima unique I.D. number, which can read by a handheld computer o stationary reader, allowing access the animal's profile on the comput

Animal records are downloaded modem to Shearwell's Livesto Management Database. Should epidemic break out, the Ministry Health could conceivably use t records to quickly trace contamin tion to food sources, regions, bloo lines, even individual animals.

On a recent rainy day in Somers Webber drove a herd of unruly, ye old sheep past a battery-operat scale and computer scanner. A scre displayed each animal's profile: t past weigh-in, the most recent vac nation, the mother. The co puter then entered ea sheep's new weight in its ce tral database. This isn't that Webber plans for t chips to do. They may also adapted to communicate wi global positioning satellites farmers can remotely tra their herds' movements.

Costs? Webber gets $6 f the stomach implant, $2,0 for the electronic reader a $500 plus upgrade fees f the software. For each dow load into the database, She well charges farmers 17 cen

The program can pay least some of its own costs increasing the farmer's pr itability. "I was saying myself, 'I've got 1,000 shee 100 that's making goo money and 100 that's losi money, but which ones a they?'" recalls Webber.

Webber holds up a sprea sheet comparing the offspri of different rams and ew One column shows t weights at slaughter, another t value of their meat at market. Usi the database and the spreadshe Webber can now tell which gene combinations produce the most val able meat in the shortest time.

Shearwell's program is currently test on 30 farms in England. It see probable that he will have no pro lem recovering the $1.7 million has invested in Shearwell Data. ■

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It's a long shot, but a talk show might be more compelling when it moves from the radio to a PC.

Webcasting

By Nikhil Hutheesing

KENNETH WILLIAMS netted $150 million in stock from the $1 billion sale of his computer game company, Sierra Online, to Cendant Corp. in 1996. A year later he retired, after wisely selling the Cendant shares, planning an oceanfront estate in Cabo San Lucas, Mexico and a 62-foot Nordhaven yacht to go with it. Then he got bored.

"The house is impractical, and the boat is a paperweight," he complains. Instead, Williams, 44, decided to start another company, this one to provide interactive talk shows on the Web.

Is this what digital convergence is all about? Maybe. The intersection of broadcasting and computer technology was supposed to create huge new opportunities for profit, and big companies like Time Warner have dissipated tidy sums trying to find them. But the earliest success stories may come from modest endeavors like Williams'. Williams figured that the proper model was neither video on demand nor sports nor hard news, but rather talk radio. He got the idea when his wife, Roberta, asked him to find a way to funnel Seattle talk shows to their future home in Mexico.

Williams hooked up with Jarold Bowerman, who had run marketing and product development at Sierra Online, and in November 1997 they founded Worldstream Communications in Bellevue, Wash. Williams invested $3 million; Bowerman added $100,000. Williams hired six technical people and lured James Golden away from his job as producer of Rush Limbaugh's radio talk show.

RICH FRISHMAN

Founder Kenneth Williams and producer James Golden (background)

Talk is cheap, and they hope it turns big profits on the Web.

Worldstream Communications' Web site (www.talkspot.com) offers shows on 3 channels; Williams expects to offer 100 shows by the end of the year. The topics range from news and politics to sex (an economic engine of every new medium since Gutenberg's day).

In a typical show the host interviews a guest to the accompaniment of video and still photographs. You get the audio over your computer's speakers (as long as you have a recent browser); on your screen you get the video plus text-based discussion between the host, guests and the audience. The discussion can change the course of the programming.

Example: A newscast on the recent U.S. attacks on Iraq might send th audience off on the tangent of high tech bombs. This flexible form requires the host and the producers t react, say, by quickly pulling up a pi ture of a smart bomb.

It's not enough to find such a pi ture in an instant; you must also b able to speed it to the viewers. Worlo stream tries to get around the chron logjam on the Internet b anticipating where the di cussion is going, calling u the right images and sen ing them to your compu er's memory befo they're needed. That w the producer can unve them instantly when th time is ripe. To make a this happen, Willian wrote some 15,000 lin of software code in Java t compress audio, text an images.

Will all that hard wo pay off? It won't be ea to lure couch potato and advertisers to th Web. "People won't giv up TV to watch som thing on-line," sa Daniel King, an analy with LaSalle St. Securiti in Chicago. "That's wh ABC doesn't produce tel vision shows exclusive for the Web."

Worldstream must als face down broadcast.com its main webcasting rival. Unlik Worldstream, broadcast.com doesn try to make its own content, b broadcasts stuff from such compani as ABC and ESPN. Another differenc broadcast.com runs conference cal for investors and corporations. I revenues jumped 171% in the first ha of 1998.

Williams expects revenues—most from advertising and subscriptio fees—to hit $2 million in 1999 an rise to $50 million in 2000. "Peop will run home from work to turn t on," he says.

That sounds a mite optimistic to u But hey, if Williams loses his $3 millio investment, he'll still have $147 millio left over—and a Mexican estate th will be ready to live in by April. ■

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By Stephen Manes

Gutenberg need not worry—yet

THE ELECTRONIC-BOOK VERSION of Frank McCourt's *Angela's Ashes* sells for $20 at barnesandnoble.com. No paper, no ink, no binding.

And no bargain. The hardcover sells for just $17.50.

Welcome to the wacky world of E-books, where it's a foregone conclusion that digital tomes will eventually supplant fusty paper "P-books," but nobody quite knows how to make it happen. Two new devices suggest just how long a haul it could be.

NuvoMedia's $499 Rocket eBook reader can download E-books at prices rarely lower, and sometimes higher, than their printed counterparts. But it's not as if the whole panoply of human knowledge is available: The B&N site offers precisely 209 titles in Rocket's E-format.

That's better than the on-line bookstore for the competing SoftBook. Its Rocket-incompatible shelves include fewer than 40 titles (including McCourt's ubiquitous tale at $17.50). Not much choice for a device costing $599—or a mere $299 if you commit to spending $20 a month on content from their E-bookstore for two years.

The Rocket looks like a thick paperback with a bulgy spine, weighs 22 ounces (plus 6 for its protective leather case) and has a battery designed to last 17 hours with the backlight on. The screen measures just 5.6 inches diagonally and can't display shades of gray or more than about half as much text as a page of a cheap paperback.

Once you open its leather front flap, SoftBook looks more like a magazine than a book. It weighs 48 ounces and has a battery life of five hours. Its 9.5-inch screen can display 16 shades of gray and about twice as much text as the Rocket.

Sights for sore eyes these are not, even if you set them to display large type. The Rocket's black-on-gray characters cry out for more contrast. SoftBook's black-on-bluish screen is much brighter, but its characters look even more jagged.

The Rocket comes with a dictionary that omits words like "consequential" and "expiration." SoftBook skips the dictionary but lets you draw annotations directly on the screen. Without memory upgrades, SoftBook can hold just a couple of novels the size of McCourt's; the physically smaller Rocket can store more than twice as much.

SoftBook's built-in modem connects directly to the company's on-line bookstore, whose screen displays can be glacial; but at least the downloads are fast. Rocket comes with a PalmPilot-like cradle that connects to a serial port; ordering from a Web site involves waiting for e-mail confirmation, clicking on a Web address, doing the download and finally transferring the book from computer to reader. The Rocket software repeatedly displayed "fatal error" messages; SoftBook repeatedly had trouble connecting via modem.

This, in short, is Version 1.0 stuff meant for those very tolerant souls known as "early adopters." But this is a future here. Evidence suggests that people really are getting information from screens. Electronic encyclopedias are cheaper and easier to use than their paper forebears and have all but supplanted them. Franklin Electronic Publishers has sold 18 million electronic books, mostly reference titles displayed on little handheld devices. Web "pages" are actually designed for screens.

In Japan, an Electronic Book Consortium encompassing more than 100 companies, including Microsoft, is reportedly spending $90 million on its vision of E-books. The project contemplates a device with one or two LCD color screens boasting a snappy 180-dots-per-inch resolution (the monochrome Rocket delivers just 106). Content will include comic books and novels delivered by satellite to kiosks located in stores that c

E-Book VS. The real thing

batteries required	rebooting never needed
breaks if you drop it	lasts almost forever
readable in the dark	requires flashlight in bed
easy to search by word	easier to browse the entire thin
remembers where you left off	requires cutesy bookmark
displays ugly graphics	originated high-resolution
saves space and weight	extremely portable
free content available	easy to lend or sell
high initial cost	no accessories required
may recite text aloud	requires optional "tape"
large type instantly available	sharp type always available
thousands of titles—someday	millions—now
may beep at you	won't ever

Stephen Manes, a computer industry journalist since 1983, is the coauthor of *Gates*, a biography of Microsoft's chairman.

itly sell similar books on paper. Trials l begin soon.

But the most telling harbinger may be a tage E-text cult centered around the mPilot. Popular shareware programs n put text files on the tiny screen a uple of fuzzy paragraphs at a time; simi- software is available for other Lilliputin units. The hundreds of preformatted es available are mostly in the public main, but you can also get a few ent and E-only works. If the

JOHN KUCZALA

cket eBook (above) l SoftBook **ong way to go replace what tenberg ented.**

hole uin- idea ems rd to lieve, check t www.mac- ff.net and ww.pilot rary.org.

Plenty of other elec- nic texts can be found the Internet. The grand- ddy of sources is Project tenberg (www.gutenberg. t), a loose coalition of volun- rs that has been collecting out- copyright titles since 1971 and fering them to the public free. The site now lists 1,600 les, from *As You Like It* to *Tom Swift and His Giant annon*, and its links can whisk you to other archives th hundreds of titles by authors from Edwin Abbott *latland)* to Emile Zola (*Nana*, in French or English). ther sites specialize in E-only titles.

If this hints that standard PCs are still very much in e running for E-reading devices, the aggressive trance of Microsoft into the E-book arena confirms The company has already announced plans to bring diobook technology from Audible, Inc., to Windows devices and will reportedly invest in Audible and her E-book players. Microsoft's ClearType font heme (FORBES, *Dec. 14, 1998*) came out of the E- ok group. Says Dick I. Brass, vice president for tech- logy development, "You're going to be able to play a ok on every platform Microsoft makes."

And perhaps play it securely. Intel's Pentium III and later processors will include an integrated serial number, much as dedicated readers do now, so that content can be targeted to a single machine. That added security blanket might help convince publishers to release copyrighted titles for PCs, which they have been loath to do for fear of piracy.

But where's the content? "The feeling was that there would be 1,000 titles by now," said SoftBook Press Chief Executive James Sachs. "Publishers are even slower than everybody anticipated—and I think the publishers feel they're going fast." Contracts may have to be checked and rights negotiated. Then comes translation to an E-format.

Says Jon Guttenberg, Random House vice president for new media: "Our hope is a couple of hundred titles by the middle of the year." But that's a tiny fraction of Random's P-book list.

The open standard promulgated by Microsoft and most of the E-book players may help. The first draft, due last month, would specify a common data format, making it easier for publishers to create a single file for each title that vendors can encrypt their own way. Device compatibility may come later.

Sights for sore eyes these are not: The Rocket's black-on-gray characters cry out for more contrast. SoftBook's black-on-bluish screen is much brighter, but its characters look even more jagged.

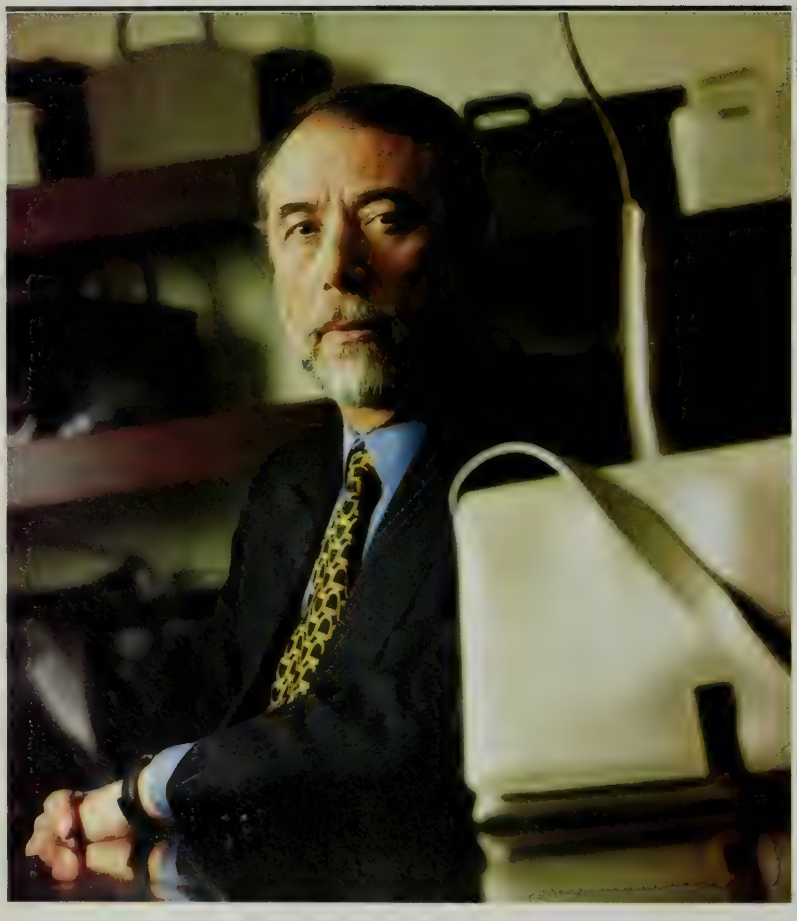
Won't customers blanch at paying the same price for bits as they do for ink on paper, particularly given the economies of production and distribution? Right now there's no discount for the intangible versions of books. But Martin Eberhard, NuvoMedia's chief, expects prices to fall to about 20% less than the cheapest print edition.

Of course, if E-books take off, authors might one day be able to eliminate the middleman. Stephen King E-Press, meet Joe Wannabe E-House. But not just yet. ■

Italy's Gucci Group is on the rebound—and LVMH's Bernard Arnault is on the prowl.

Gucci's $4 billion man

By Richard Heller



STEVE SISOLI

Gucci's Domenico De Sole **Rescue job.**

BEFORE HIS WIFE had him gunned down in a Milan doorway in March 1995, the late Maurizio Gucci was doing a pretty good job of running his family's Gucci Group luxury goods company into the ground. In 1993 the company whose supple leather loafers adorn some of the world's wealthiest feet and whose handbags hang from some very fancy shoulders lost more than $23 million, on revenues of $203 million. Unhappy trade creditors were banging on Gucci's doors. Payrolls went unpaid.

Less than six years later Gucci is coining so much money from one of the planet's hottest brand names that the $1 billion (sales) company has become a takeover play. Last month Bernard Arnault, chairman of France's mighty LVMH luxury goods grou deftly acquired 26.7% of Gu Group's 60 million publicly trac shares, at prices that value the com ny at more than $4 billion.

The story of how this 76-year-o firm has moved so quickly fr derelict to darling involves some sa international investors and a Tex named Thomas Ford—who just h pened to be at the right place at t right time when Gucci's chief exec tive, Domenico De Sole, named h top designer in 1994.

There was little time to waste. Gu Group's then-owner, Bahraini inve ment company Investcorp, had l Maurizio Gucci and his cousins ci and was impatient for results. "We f ured we had to do something qu and splashy," De Sole recalls, "beca if we didn't, Investcorp would par and sell out."

But do what? With what? The co pany was awash in red ink and 19 wasn't going to be a whole lot bett

"There wasn't much money t advertising," co tinues De So "so we decid to sink what had into fashio which is a high publicized business. Somehow we h to send out the message that a n Gucci was being born. We had make the brand fly!"

For the twice-yearly media circu known as the Milan ready-to-we shows, Ford designed and produc stunning new men's and women's c lections, starting with the fall 19 show. They won raves from the fas ion elite and moved the Gucci ima back into the forefront of the luxu goods field.

A kind of virtuous cycle was begu As upmarket shoppers again freque ed Gucci stores, looking for For clothes, they'd pick up a new pair $350 loafers or another $600 han bag. And once back in the habit buying Gucci's leather goods, they buy a $2,200 cocktail dress or $3,500 sport coat.

In 1995 Gucci Group earned record $83 million, on revenues $500 million. Investcorp decided was time to take some marbles off t table. In October 1995 it sold part

s Gucci holding in an initial ublic stock offering in Amsterm and New York; a year later it old the balance in a secondary ffering. On its $800 million ucci investment, Investcorp rned $2 billion and would have ade more had it held on. By 997 revenues had reached $975 illion, and the net came in at 176 million, a high (even by xury goods standards) 18% of les.

As the money began pouring to Gucci's registers, De Sole hanneled much of it back into pporting the company's image. dvertising rose to $80 million st year from $28 million in 995. Over $300 million has een spent to buy out franchisees, pen new Gucci-owned stores nd refurbish older ones. Gucci ow owns and operates 120 ores, more than twice as many in 1995, and new ones are routing all the time—in Milan, ienna, Zurich, Hong Kong and okyo last year alone. This year ill see the upgrading of stores in ew York, Verona, Honolulu, everly Hills and Paris, as well as ucci's original store in Milan.

But for all the control they exerse over Gucci's products and nage, De Sole and Ford cannot ontrol the price of Gucci's stock. hich is why Gucci is now a keover play. Because nearly half s operating profits come from Asia, its ock fell steadily in the midst of the 997 Asian financial crisis, from around 70 to $30 before bouncing to around 40, where it remained throughout ost of last year.

"In our case, the market treated Asia if the continent were about to sink nder the waters, like Atlantis, and us ith it," grumbles De Sole, who says e was already battening down Gucci's sian hatches in April 1997. "The idea at we might recognize a problem and o something about it never seemed to ccur to anyone."

In fact, Gucci has weathered the sian storm in splendid shape. Last ear's first nine month revenues rose .2%, to $741 million; net profit for he period rose 3.5%, to $127 million. etter yet, De Sole was able to use Gucci's strong cash flow to buy in several franchisees in South Korea, Taiwan and Guam at very attractive prices and to renegotiate several expensive leases in Hong Kong and elsewhere.

While the stock market thought Asia would buffet Gucci, some very smart competitors could see that the company was in no real danger. Among them was Bernard Arnault, chairman and controlling shareholder of $9 billion (estimated 1998 revenues) LVMH, the Gallic luxury goods company whose brands include Dior, Guerlain, Veuve Clicquot and Louis Vuitton.

After secretly acquiring a 5%-plus stake in Gucci in early January, Arnault bought another 9.5% stake that had been quietly purchased by Patrizio Bertelli, the husband of designer Miuccia Prada and chief executive of her family's Milan-based fashion company.

Arnault has said he does not presently intend to make a bid for Gucci. But if he changes his mind, he's in a strong position to make a run at the company. As this issue of FORBES went to press, LVMH had increased its position to 26.7%.

Grouses De Sole, who thinks Arnault might have had the courtesy to let him know he was interested in Gucci: "The guy [Arnault] just asked himself over to dinner without calling first."

On paper a full LVMH/Gucci merger makes some sense. Gucci would pick up valuable new outlets through which to sell its growing line. LVMH would get badly needed new products from the hot hand of Tom Ford.

Price would be a problem. Arnault might well have to pay close to $100 a share for the 44 million Gucci shares LVMH does not already own, bringing the total cost of the acquisition to around $5.6 billion. But Arnault could probably justify the price on the grounds that Gucci is debt free, is throwing off close to $300 million a year in cash flow and stands to throw off much more cash as the Asia storms abate.

Cedric Magnelia, a London-based luxury business analyst with Credit Suisse First Boston, believes Arnault badly wants to go after the rest of Gucci but needs De Sole, Ford and other senior Gucci management to swing the deal. Losing them, he says, "would cost too much in Gucci's goodwill value." Publicly, Arnault gushes that De Sole is "an excellent manager," and Ford "an exceptional designer."

But could all these egos operate under one corporate roof? A true Gallic autocrat, 50-year-old Arnault is unlikely to share any real power with De Sole. And having created an immensely valuable franchise out of ashes, De Sole is unlikely to take orders from Arnault, five years his junior.

But to his credit, De Sole says his job is to "protect my shareholders, and that means to get them the best deal around. If the greatest value turns out to be offered by LVMH, then so be it." ■

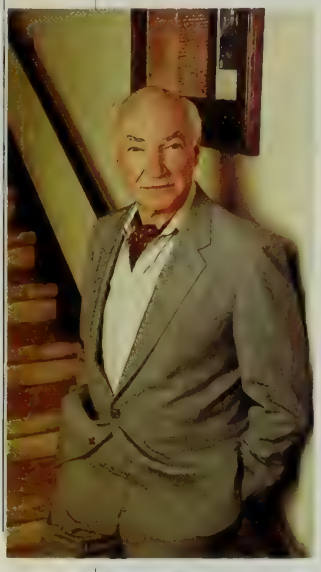
BARRON CLARK/RM/CATTLINE

PHOTOPRESS GRANATA

Gucci head designer Tom Ford and the 1998 men's line **"We had to make the brand fly!"**

By Jerry Flint

Back to the future



Would you pay $50,000 for a Lincoln Navigator with a small pickup box at the end and wood-veneer sides?

BACK IN THE 1980s Kohler Corp. tried to jazz up its sales of bathroom fixtures by copycatting a concept from Detroit: the annual model change. That's right; if your toilet wasn't the latest version, you weren't keeping up with the Joneses.

I'm not sure this made plumbing products fly off the shelves, but it demonstrates the desirability of having something new.

You remember the annual model change from your youth. Every year the cars were a little different, which kept the buying juices flowing. All this changed in the 1970s and 1980s, as Detroit's big three had so many models that they just couldn't keep changing them all the time. Models lasted six to ten years, or even longer, which took much of the excitement out of the business.

Now the annual model change in autos is back, but it isn't like the old one. The new idea is to bring out serious variations often and let them run just a few years, during which the new models get top dollar. Then, when enough competitors show up, kill off the old models and bring out new variations.

Examples:

Ford builds 450,000 Explorer sport utility models a year. But competition is growing. Next spring Ford will add a variation, the Explorer Sport Trac, with a short open pickup bed in back. Ford figures there might be as many as 50,000 customers for such a vehicle. Figure it's a $35,000 vehicle. Maybe an $8,000 gross profit on each. That's a $400 million contribution to operating income. Since Ford is out there first, it won't have to trim its markup.

Lincoln has a similar but bigger vehicle coming later, the Navigator Blackwood, with a small pickup box at the end and wood-veneer sides. Figure $50,000. If Ford can sell 7,000 a year at a $15,000 profit, that's $105 million.

DaimlerChrysler has the PT Cruiser coming early next year. Call it neo-retro. It looks like a 1936 car, but it's built on the platform of Chrysler's low-priced Neon. Now, Neons aren't very profitable—they sell for $12,000 or so, with a $1,500 rebate. The PT Cruiser, though, might sell for $18,000. That difference could make the entire Neon platform profitable. A year later Chrysler might create a sleeker two-door variation. A year later it might make an all-wheel-drive version. How many PTs can be sold? No one knows—but 150,000 a year worldwide is not unthinkable.

GM is getting into this act, too. Late next year it will have a chubby Pontiac, built on the minivan platform, but essentially a car. The next year it might add all-wheel drive.

All these examples represent variations of something already in production. They don't cost a billion dollars to design, engineer and tool.

But understand three things: (1) No one really knows if unusual styles will sell. Will tens of thousands of buyers want a sport utility with a small pickup box in back? Or a car that looks like a 1936 reincarnation? (2) This isn't easy. Chrysler executives battled for 18 months over the design of the PT Cruiser. Most wanted a modern design, something like the boxy Volkswagen Golf or a small minivan. The retro design that won out could be called a matter of last-chance luck. (3) Carmakers will have to be willing to kill these variation models quickly when the competition comes in and profits fade.

The old way to get rich, to sell high-volume products, is still around. Honda sells 400,000 Accords. Toyota sells 400,000 Camrys. Ford sells nearly 500,000 Taurus platform cars, too (half of them, it's true, go to fleets, not retail customers), and Ford sells 800,000 big pickups and 400,000 Explorers, while GM makes 1.2 million big pickups and SUVs from the same platform. But the high-volume models are few and hard to create.

That's why this new type of annual model change is welcome. Detroit needs to come up with some clever profit boosters, to counteract overcapacity in the industry.

One more point: This writer predicted more than once that Ford's Lincoln would outsell Cadillac in 1998. Cadillac reported amazing sales in December and beat Lincoln by a couple hundred units for the year. But there's no respite in the fight for leadership in luxury vehicle sales. This year Mercedes and Lexus are coming fast.

Good luck, Caddy. ■

Jerry Flint, a former FORBES Senior Editor, has covered the automobile industry since 1958.

rug companies have figured out a way to hide their research and development sts. The big question is whether this gimmickry fools anybody.

Putting a spin on R&D

Zina Moukheiber

U CAN SUBSCRIBE to either of two hools of thought on how investors d earnings statements. One school s that investors are too sharp to be oled by accounting shenanigans so g as all the facts are disclosed in e footnotes. The other school says at investors are basically dumb. ey are mesmerized by reported rnings per share, even where the otnotes clearly state that the report- earnings are not to be ten seriously.

We may soon get a reading which theory is closer to e truth. Watch the price of za Corp. shares if and when cherished accounting she- nigan is outlawed.

Alza specializes in drug- livery techniques. It makes in patches for SmithKline echam's nicotine drug, for ample, and Procardia XL, e controlled-release version Pfizer's angina drug. Alza s founded in 1968 by Ale- dro Zaffaroni, a Uru- ayan-born scientist who had en part of the team that vented the birth control pill. r many years Alza was in the velopment stage—meaning had tiny revenues but big sts on its income statement. Those years of R&D eventu- y paid off. Under its chief executive, nest Mario, Alza hauled in an esti- ated $590 million in revenue last year m product sales and royalties. It is pected to report $137 million in net come; at a recent $47.50, its stock s a $4 billion market value.

But is Alza as profitable as it seems? continues to pour a lot of money to R&D, only now those expenses e kept off the income statement. is clever maneuver was created with lvice from Merrill Lynch.

In 1993 Alza founded a company called Therapeutic Discovery Corp. and parked $250 million of cash in it. Alza spun TDC off to its shareholders, and the shares traded separately. TDC then hired Alza to develop drugs for it, reimbursing Alza for its costs. Between 1993 and 1997 TDC paid Alza $275 million to develop drugs.

The money was well spent. During the time that Alza scientists were laboring on behalf of TDC, they laid the groundwork for a urinary incontinence drug called Ditropan XL. The active ingredient was discovered by another drug firm years ago, and its patent had expired. But by creating an extended-release version, Alza gave the drug a new lease on life. Ditropan XL hits pharmacy shelves in February.

TDC wasn't destined to get rich off this deal. Alza retained the right to either buy TDC or license its drugs at favorable prices. Alza purchased TDC from the public in 1997 for a mere $100 million and dissolved it.

So for a price equal to less than half its original investment, Alza was able to pick and choose the most promising new drugs and dump the failures. By clever attention to details Alza will be able to use TDC's losses to shelter its own royalty income on its tax returns. What do we make of the accounting, which caused a major expense item to disappear from the P&L? David Steinberg, a senior analyst at Volpe, Brown, Whelan & Co., calls the exercise misleading.

A charade it may be, but the technique is catching on. After folding TDC, Alza created another company, Crescendo Pharmaceuticals Corp., to pick up where TDC left off. Crescendo was handed seven promising drug development projects and $300 million—to pay Alza to do research. Crescendo was spun off in September 1997; its shares now trade at $14. Alza retains the right to buy back all of Crescendo or license its creations on favorable terms, so there's not much upside to Crescendo.

Alza has inspired others: Elan Corp. and Forest Laboratories set up similar R&D vehicles to keep earnings intact.

Robert Willens, an accounting expert at Lehman Brothers, predicts that the Financial Accounting Standards Board will spoil things in February with a proposal to force controlling parent companies to consolidate R&D vehicles. FASB has strong backing from the SEC. Open for debate: what an accounting crackdown would do to shares of small drug companies. We may get a chance to see how dumb investors are.

JASON GROW/SABA

Alza's chief executive, Ernest Mario

Are the earnings as good as they seem?

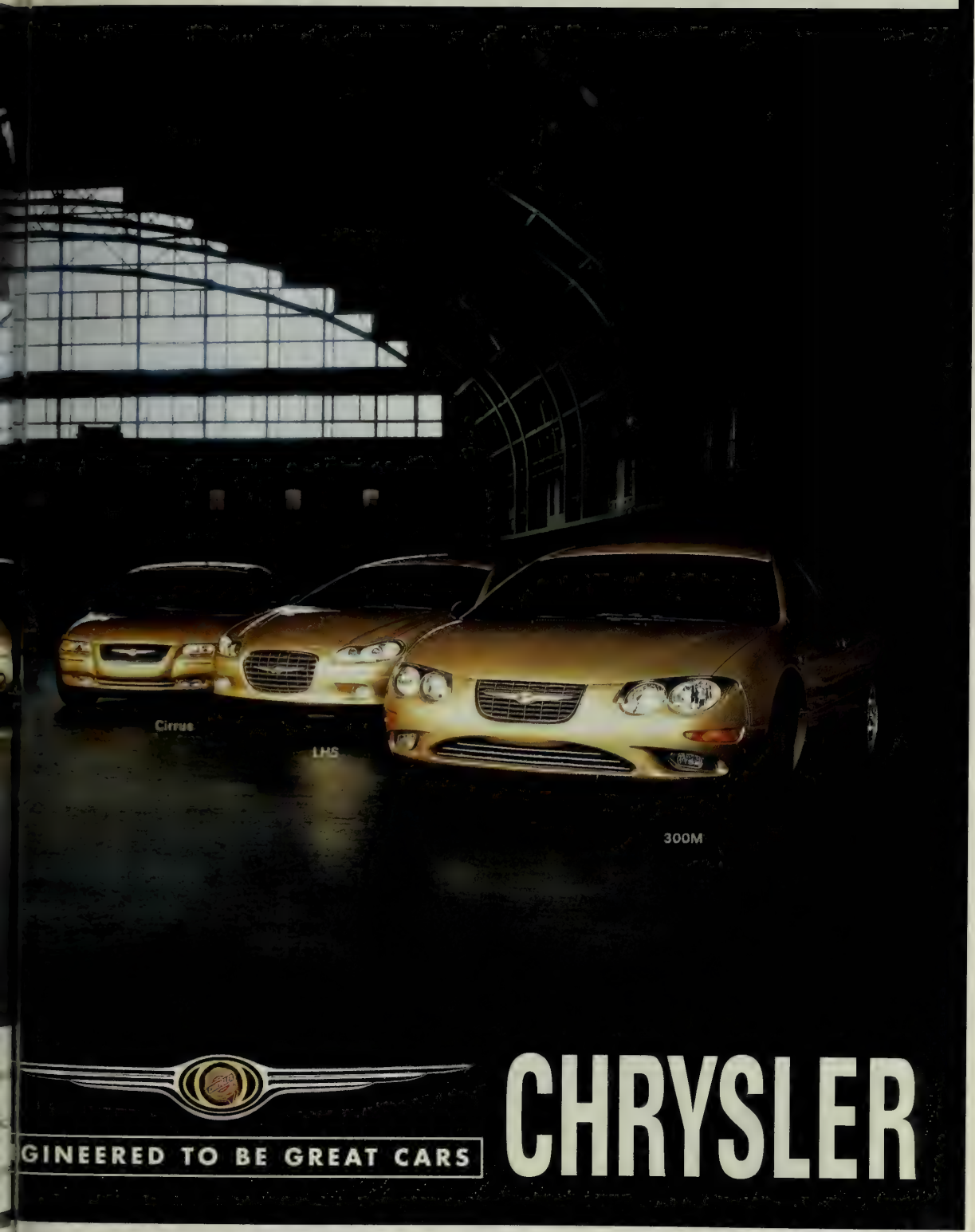
In the right hands, iron, steel and alumi

At Chrysler, we have one simple philosophy: to create great cars. It's about sculpting innovative, influential d

the quest for engineering excellence. It's about taking the basic elements and crafting something dynamic, u

extraordinary. For more information, just call 1.800.CHRYSLER or you can visit our Web site at www.chrysle

an be transformed into precious metals.



GINEERED TO BE GREAT CARS

CHRYSLER

PHOTOGRAPHS BY MICHAEL J. N. BOWLES

How do you account for the explosive success of that strange business called Vanguard? Maybe it isn't really a business at all. It's a religion.

The Gospel according to VANGUARD

By Thomas Easton

SOMETIME, PROBABLY IN 2003, Fidelity Investments will cease to be the largest fund purveyor in the world. Vanguard Group will take its place.

Vanguard has $442 billion under management now, to Fidelity's nearly $700 billion. But the gap is closing. Last year Fidelity expanded its fund assets by roughly 20%, reflecting mostly the bull market. Vanguard grew by 33%—half from new money.

When Vanguard pulls ahead, newspapers will record the event. But will they take note of what is freakish about it? The market leader in a competitive, consumer-oriented industry will be a company that scarcely advertises at all. Think about this for a minute. Can you imagine a world in which AT&T or General Motors or Procter & Gamble is still a market leader but does not advertise?

Vanguard Group does buy a few ads to get people to ask for prospectuses. But the sum spent is tiny—$8 million a year. On its asset base this comes to a fifth of a basis point. Meaning: If you had $10,000 parked last year at Vanguard's headquarters in Valley Forge, Pa., Vanguard spent 20 cents of your money, not even the cost of a postage stamp, to drum up new business. To look at the $8 million another way: It's the amount that the Kaufmann Fund, a hundredth Vanguard's size, spends every year on advertising; it's half the amount that General Mills will spend this year on advertising to roll out Sunrise cereal.

How common is it for a relatively unadvertised brand without any mass sales force to be a top name in a mass-marketed industry? We posed that question to Philip Kotler, longtime marketing professor at Northwestern's Kellogg Graduate School of Management. "It's unusual," he says. "Very unusual." He pauses and adds: "Maybe even unique."

It's not that Vanguard succeeds *despite* a tiny marketing effort. Vanguard succeeds *because* of its tiny marketing effort. Its 12 million customers have flocked to it—and are adding new money at a rate of $200 million a day—because Vanguard promises to put the maximum amount possible to work for them with the smallest possible amount taken out for overhead. Any money spent at all on marketing conflicts with this selling proposition.

Put it this way: Vanguard portrays fees and costs as an evil and efficiency as a virtue. Vanguard is in the business of selling virtue.

Other money managers may sell you performance or a famous name like Peter Lynch or excitement of

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TITHES FROM THE FAITHFUL

John Bogle, senior chairman, and Jack Brennan, chief executive, with the morning receipts.

the sort that comes from a hedge fund. Vanguard sells next to none of that because its funds, for the most part, are passive index equity or bond funds that merely track the market.

If you are not already a convert to this religion, take a look at what you are missing. The average mutual fund in the U.S. runs up an expense ratio of 1.24% of assets annually. The ratio for Vanguard's 101 funds is 0.28%. The difference between typical expenses and Vanguard expenses is close to a percentage point; multiply that by Vanguard's asset base and you see that this religion is saving its customers $4 billion a year.

In most of American business the catchphrase "You get what you pay for" holds true. A $12,000 car just isn't as good as a $30,000 car. Not so in money management. Do hedge funds, with the highest fees of all, deliver more performance than conventional funds? As a group they utterly fail to do that, as we detailed in an article last spring (FORBES, *Apr. 20, 1998*). Does an expensive muni bond fund from Putnam earn more than a cheap one from Vanguard? No, just the reverse. Does a high-overhead index fund deliver a higher return than a cheap one? No, the correlation runs the other way.

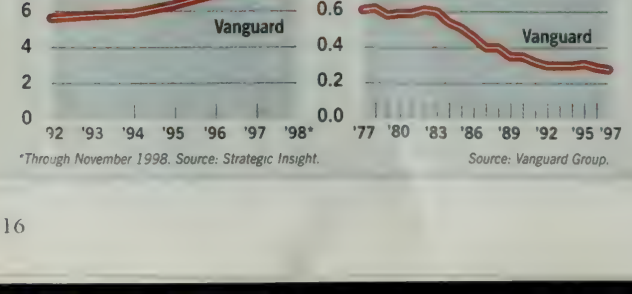
Vanguard's flagship fund, the $75 billion Vanguard 500 Index Fund, tracks the 500 stocks in the Standard & Poor's Index. Partly because the market has recently favored U.S. blue-chip stocks of the sort found in this fund, partly because of its low overhead and partly because actively managed funds squander a lot of dollars trying to beat the index, the 500 index is at the top of the pack in performance. It beat 86% of all stock funds last year and a higher percentage of all stock funds over the past decade. It has appeared three times on the Forbes Honor Roll of steady performers. This is the hottest-selling fund on the market today, and there is a good chance that sometime before the end of IRA season in April it will overtake Fidelity's famed Magellan Fund in size.

The virtue of keeping your costs down shines through not just in indexed stock funds but in any kind of bond fund. Vanguard has $77 billion in fixed-income funds; those funds get a disproportionate share of the honors in

the FORBES ranking of Best Buys *(see p. 124)*.

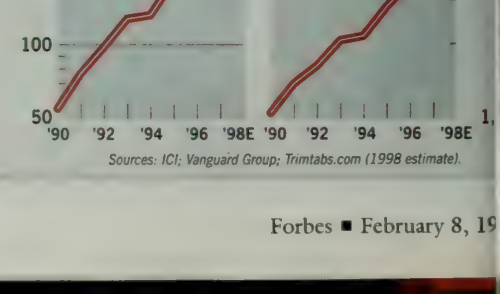
Vanguard's assets have been growing at a method
30% annual rate over ten years, and there is no reason t
can't keep doing that so long as the bull market holds
When the correction comes, there will be a downward
in the dollar total but not in Vanguard's market sha

Vanguard's market share grows... because its cost edge widens.



Through November 1998. Source: Strategic Insight. Source: Vanguard Group.

And its equity funds gain favor...



Sources: ICI; Vanguard Group; Trimtabs.com (1998 estimate).

During all the turbulence of last year's market Vanguard didn't experience a single day of negative cash flow. The money keeps coming.

Why stop at Fidelity's share of the fund business, now hovering near 12%? "We're a small company, and we haven't begun to exploit our opportunities yet," says Vanguard Group's chief executive, 44-year-old John J. Brennan. There's Europe and Asia, to say nothing of the trillions of dollars held in non-Vanguard U.S. funds. "It's humbling."

Brennan, who joined the company 17 years ago after a brief stint at S.C. Johnson & Son as a minor bureaucrat, is an insider type, almost shy around outsiders, and not given to boastfulness or salesmanship. But he makes this boast about his employer: No other company offers the highest-quality product and the lowest-possible price. In quality, he is talking not just about investment performance but also about service—picking up the telephone and answering the mail. Vanguard's 2,000 phone reps are told to answer the phone by the fourth ring. During a market panic or on Apr. 15 Brennan brings out a brigade of executives, himself included, to man the phones, and he drops in biweekly for additional shifts to stay in touch.

WHERE THE MONEY GOES

George (Gus) Sauter runs $75 billion S&P index fund by the seat of his pants.

Does anything else come close to this business model? There are some very successful companies that offer terrific value in the form of low prices. Costco, the warehouse retailer, and Southwest Airlines come to mind. But these are bare-bones suppliers. (Costco sells high-quali- goods, but its retailing service is very spartan.) You get hat you pay for, or maybe a little more than you pay for. Teachers Insurance & Annuity Association comes retty close. This vendor of funds and annuities, with sets of $232 billion, has expense ratios a bit higher than anguard's. It only began selling to the general public in 1997. For most of its existence it has had a captive clientele among college professors.

What about other financial institutions that, like Vanguard and TIAA, are organized as nonprofits owned by their customers—that is, as mutuals? The life insurance industry used to be dominated by mutuals, but they did not stand out for their low costs or high performance. Nor did they necessarily see their main purpose as serving their customer-owners. The big ones have been demutualizing as fast as they can draw up fancy option packages for their executives.

Might Vanguard convert to stock ownership? It will never happen while John C. Bogle—founder, senior chairman and guiding light of this company—is alive.

The concept for Vanguard goes back to a thesis written by Bogle in 1951, when he was a senior at Princeton. At the time, all mutual funds ran up fairly high overhead and were sold with sales loads. Why not, speculated the 21-year-old Bogle, create funds that would be bought, not sold—without a sales commission? Why not try to maximize growth by keeping overhead down?

The ideas lay dormant until 1974, when Bogle was fired as chief executive of then-publicly-traded Wellington Management, an old-line firm brimming with higher-than-average costs and active managers. Out of Wellington's back office he created Vanguard as a fund distribution company mutually owned by shareholders and built around those investor-friendly notions he wrote about years before.

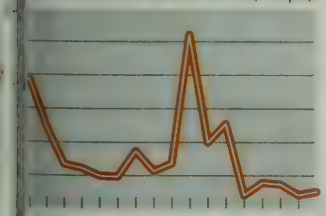
The world wasn't waiting. For 80 straight months investors redeemed more shares of Vanguard-distributed funds than they bought. The S&P 500 index fund Bogle brought out in 1976 was initially a flop. An underwriting aimed at raising $150 million brought in just $12 million. Then the fund underperformed for several years. Bogle's answer: In 1977 he axed the longtime sales force inherited from Wellington, making the funds no-load.

Risky thing, that. It was a bear market. Investors weren't buying, and Vanguard wasn't selling. What sustained him?

Faith. "Only because I believed" [in the logic of low-cost investing], he writes in his follow-up to the thesis, *Bogle on Mutual Funds* (Dell, 1994), did he create Van-

hen Peter Lynch is ard to find.

remental return over S&P 500 index (in %pts)



p 10% of active fund managers barely beat e market in periods when small stocks lag.

Source: Wilshire Associates.

The advantages add up, so clients will take "no" for an answer.

Service offered	Vanguard	Merrill Lynch	Fidelity	Schwab
phone purchase of all funds	no	yes	yes	yes
credit/debit cards	no	yes	yes	yes
life insurance	no	yes	yes	yes
monthly statements	no	yes	yes	yes
unlimited checking	no	yes	yes	yes
branch offices	no	yes	yes	yes
ATM access	no	yes	yes	yes

guard; "only because I believed" [in passive investing] did he create an index fund; "only because I believed" [in funds being bought, not sold,] did Vanguard go no-load.

In case you missed the religious undertone, look for Bogle's second book, *Common Sense on Mutual Funds*, due out from John Wiley & Sons this year. "The mission [of Vanguard] is not very complicated," he writes, "but anyone who preaches it had better live it.... The business of managing other people's money—no matter how an enterprise is structured—must be focused on the human beings it serves and the human beings who provide those services. A mutual structure may be necessary to provide both optimal services and maximum return to shareholders, but it is not sufficient. Mutual funds must also be mutual in spirit. Organizational principles are involved, but so too are human principles."

Bogle is preachy, sanctimonious even. But his passion for cost-cutting and serving the investor-owner is what sells the funds. When you become a convert to the Vanguard religion, you know what you are buying—frugality. You don't need to see it on a billboard. Bogle has said it all in thousands of letters, to shareholders, to magazine editors, to Securities & Exchange Commission members, to congressmen. And he has delivered it with a relentlessly declining expense ratio *(see chart, p. 116)*. Because he will turn 70 in May, he is supposed to step down as one of Vanguard's directors, but don't bet on it.

All this passion to save a few basis points continues under Jack Brennan, Bogle's anointed successor and the chief executive since 1996. Witness the scene in early January as Brennan leads a two-hour pep rally for 2,000 of his 8,000 employees huddled under a circus tent in frigid weather. He exhorts, praises and then warns against complacency and competition. He reminds the crowd that Vanguard must work hard to get as many statements in the mail as possible before the 1-cent postage increase goes into effect Jan. 10. Then, Oprah-style, he dives into the audience to take questions. By his arrival back at work at 6 a.m. the next day, the e-mails start pouring in, almost 1,000. There are plaudits, complaints (notably cold feet) and even tips. He respond to each one personally.

If Vanguard holds anything more sacred than expense ratio, it might be those employees. Layoffs ca to Fidelity in 1997 and 1998 and to Franklin Resour in January, but never to Vanguard in its 25-year histo Bogle once told directors of one of his funds that

THE HERETICS

They hire the non-index managers: "We wouldn't have them if we didn't think there was a reasonable opportunity to beat the market," says Jeffrey Molitor, group head.

Thinking the unthinkable

IT'S ALMOST sacrilegious, but we'll ask the question anyway: What if Vanguard Group went public? With permission from their boards of directors, John Bogle and John Brennan could deliver most of the shares to account holders, hand out a few to employees and grab some options for themselves.

Valued as a conventional, for-profit firm, Vanguard would fetch a tidy sum—maybe $10 billion, says Milton Berlinski, an investment banker at Goldman, Sachs. That assumes, however, that Vanguard jacks up its fees so that its pretax profit margin is the 30% typical of the industry rather than the 0% it's set at currently.

It will never happen, says Bogle. A profit motive would fly in the face of all that Vanguard has ever stood for. Adds Brennan: "We'll be the last mutual institution in the world."

Vanguard equity scorecard

Among its 101 total funds, Vanguard is justly famous for its indexed offerings—stock, bond and balanced. But it also has noteworthy managed equities. Here's a sampling of both types of its stock funds, with assets as of Dec. 31 and annual expense ratios (for bond funds, see Best Bets).

INDEX 500, *$70 billion*, 0.20%
Mimicker of 500-stock S&P index is heavy on blue chips (GE, Microsoft). Has been the place to be in recent years. Better values may now exist in the broader market.

TOTAL STOCK MARKET, *$9 billion*, 0.20%
John Bogle's pick as single Vanguard fund to buy. If you believe in indexing, look no further. Hot market segments tend to rotate—so buy them all, reduce the odds of missing out. Since fund created in 1992, has lagged S&P 500 fund by 1.5 percentage points annually because of 25% weighting in smaller companies. But over decades, says Bogle, results are identical.

HEALTH CARE, *$8 billion*, 0.38%
World-beater I. Has seen assets triple in two years, meaning much of sector standout is parked in largest drug companies. Perfect place to this point, but fund's average P/E is 40, even with value-oriented manager Edward Owens scouting for cheapest worthy names in industry. Buy only to hold cream of corporate world at nonfat fee.

U.S. GROWTH, *$12 billion*, 0.43%
World-beater II. Superb numbers, but look closer: Performance and portfolio overlap strongly with Vanguard index fund tied to growth-priced stocks in S&P. And index version has done better, at lower cost.

CAPITAL OPPORTUNITY FUND, *$175 million*, 0.49%
Same outside managers for Vanguard star Primecap (closed to new investors) took over this small, heretofore lousy performer. Opportunity knocks.

EQUITY-INCOME FUND, *$3 billion*, 0.42%
The Vanguard edge: Noted value investor John Levin co-manages this fund, which has an expense ratio half that of his own closed-end fund, Baker Fentress.

WINDSOR, *$18 billion*, 0.31%
For years Vanguard's flagship, its recently lagged market and similar funds, even well-managed sister Windsor II. Major holding of Bogle's, likely because shares bought long ago carry huge capital gains. Upholds his adage that indices beat managers: "Always exceptions, but not in the long run." –T.E.

money. E-trading is the hottest area in the brokerage business these days. So Vanguard booted up an on-line trading service last December, along with access to 1,200 competing funds. How to signal it is now a player in the fund supermarket business that Schwab created? It won't. Advertising budget: zero.

"It won't be a failure if we don't sell," says Joseph Rizzello, recently hired from the Philadelphia Stock Exchange to head the discount brokerage. Vanguard wants its customers to have consolidated accounts and make the odd, important transaction, but it doesn't want the day traders that an ad campaign would attract.

Telephone switching is a popular sport at other fund companies. You can't do it in or out of the Vanguard 500 Index; redemption orders for that fund have to come in by mail. That's to discourage market timers.

Why is market timing discouraged? In the Vanguard dogma, timing is bad for you—it runs up transaction costs and, outside of a 401(k)-like account, your tax bill. To be sure, you don't pay a fee to get in or out of this no-load, but a flurry of sell orders might impose trading costs on fellow shareholders, and that would be wrong.

uld allow an increase in the expense ratio for only one ason: to save jobs.

Certainly nothing that the customer might want in the y of frills will be permitted to interfere with the crusade ainst costs. Fidelity and Charles Schwab have peppered e country with walk-in sales outposts. Vanguard has just e, in Philadelphia, and plans to fold it in April to save

n insiders get rich at a utual institution? though they are secre- e about their compen- ion, it appears that, of two years ago, gle and his protégé re pulling down com- nsation of $3.3 million d $1.9 million, respec- ely. The *Independent Adviser for Vanguard Investors*, a Potomac, Md.-based newsletter, extrapolated these figures from some scanty public reports. The newsletter also calculated that the pair had $45 million between them invested in Vanguard funds.

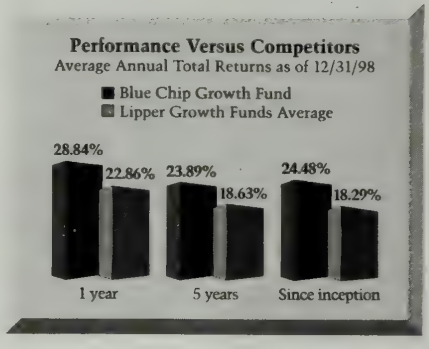
In short, management at this outfit did not take vows of poverty. But it appears that there are no personal billion-dollar fortunes of the sort seen at Fidelity Investments and Franklin Resources.

If the unthinkable ever does happen and you get a proxy statement asking you to vote for demutualizing this company, vote "no." Even if fund shareholders were given 100% of the equity value in Vanguard Group, they would be poorer by the amount of the corporate income tax bill Vanguard would pay. You're better off with a low expense ratio. –T.E.

100% NO LOAD

A GROWTH FUND WITH BLUE CHIP PERFORMANCE

T. Rowe Price Blue Chip Growth Fund invests in the leaders of today as well as companies expected to become the industry leaders of tomorrow. These blue chip companies can offer you excellent, long-term capital appreciation potential.



A record of proven performance. The fund's focus on excellence has rewarded investors well. As the chart shows, it has outperformed the average of its peer growth funds over time. The fund has also earned Morningstar's highest rating—**five stars**—for its overall risk-adjusted performance. It was rated among 2,802 and 1,702 domestic equity funds for the three- and five-year periods ended 12/31/98, respectively.*

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Fund inception date: 6/30/93. Figures include changes in principal value, reinvested dividends, and capital gain distributions. Investment return and principal value will vary, and shares may be worth more or less at redemption than at original purchase. (Source for Lipper data: Lipper, Inc.)
*Morningstar proprietary ratings reflect historical risk-adjusted performance as of 12/31/98. These ratings may change monthly and are calculated from the fund's 3- and 5-year average annual returns in excess of 90-day Treasury bill returns with appropriate fee adjustments and a risk factor that reflects fund performance below 90-day Treasury bill returns. The fund received 5 stars for the 3- and 5-year periods. The top 10% of the funds in an investment category receive 5 stars. Read the prospectus carefully before investing. T. Rowe Price Investment Services, Inc., Distributor. BCG04730-

Vanguard tends to attract t believers—you probably wouldn' shopping here if you didn't kn something about expense ratios. the other fund giants can fight ba Responding to price competition fi Vanguard, Fidelity has created a Sp tan line of funds with expense ra about half the Fidelity norm. The is that in passive money managem Vanguard has popularized a style t others can easily replicate. Above desk of index fund portfolio mana George (Gus) Sauter hangs a poste his face morphing into a monkey's appreciative gift from the bond gro which, given its own indexed a semi-indexed strategy, could thought of as just slightly m evolved along the primate scale.

An index fund from any other fu vendor will suffice for an invest assuming the vendor has enou scale and processing competency run one efficiently and is willing pass the cost savings along. To attr business from corporate spons with fat 401(k) plans, Fidelity oft a loss leader S&P index fund at a c of ten basis points, just over half rate on the Vanguard fund. Fidel and a handful of other fund vend are in a position to capture most all of Vanguard's operational effici cies. "I always said there w economies of scale that could applied to the rest of the industr says Bogle. "But I didn't say th were more that could be applied Vanguard. Economies of scale cease. I think we're close."

But could the competing fund v dors eliminate their marketi expenses? Probably not—they do have that religious aura to trade Bogle figures his company has a basis-point advantage here. M important: All the other fund gia that sell primarily to the gene public are for-profit companies. A they prepared to sacrifice their ent profit margin—Bogle figures he 40 basis points of advantage here— win back the Vanguard conver Almost certainly not.

Vanguard wins because it has very simple message to sell. It is lik to keep winning because that sim message is hard to imitate.

Fund shopping made simple

by Eric S. Hardy

THE BABY bear market of the summer of 1998 was followed by a fourth-quarter bull stampede. The S&P 500 finished 1998 with a total return of 29%, marking the eighth consecutive calendar year of positive performance. Chances are that the next correction won't be as kind, gentle or short.

Concerned about preserving capital in the next bear market? If so, look for mutual funds that fared well in previous downturns. The FORBES fund-rating system—which rates funds separately in up and down markets—simplifies this search.

Although a handful of funds—Janus Twenty Fund, Longleaf Partners Fund and Fidelity Growth & Income being examples—score well in both bull and bear markets, most excel in only one environment. If you are aiming for the highest possible bull market return, you should steer clear of funds such as Scudder Growth & Income, which FORBES rates only C in up markets. In a down market, however, this fund is rated A, and is likely to fare better than most of its peers.

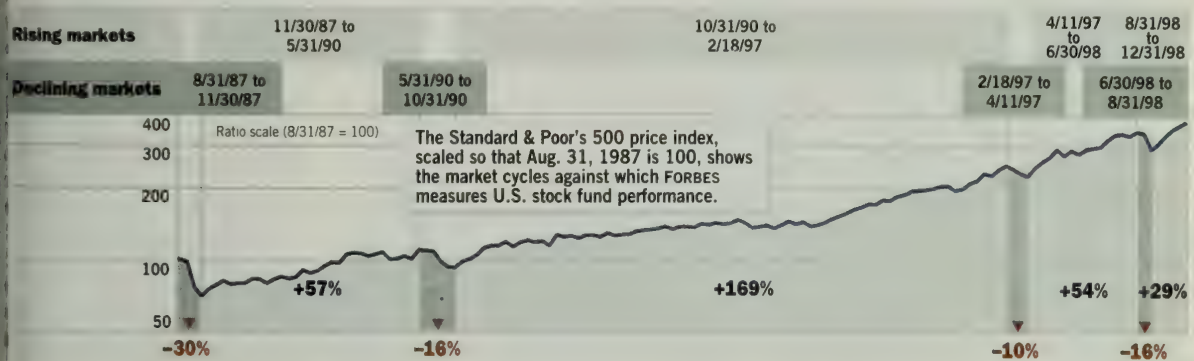
U.S. stock funds are graded against their peers over four up and down markets displayed in the graph below. Funds around for only three cycles are graded against others of that vintage; those newer than that aren't graded and won't be found in the tables that follow. Balanced, foreign, international and junk bond funds are rated in similar fashion against differing benchmarks, and are listed in the Best Buy tables beginning on page 124.

Costs matter a lot in intelligent fund selection and are an important component of the Best Buy selections. Contrary to popular belief, costs matter as much in raging bull markets, such as we have had, as they do in bear markets. If you lose 1% of your pot of money one year to an excessive fund expense burden, then this pot will be 1% smaller when you retire, and it matters not a whit whether the costly year came when the stock market was going up or when it was going down.

And what if you are inattentive to costs year in and year out? Then the damage is staggering. With a very conservative set of assumptions on what you have in your 401(k) plan and what you add to it, a continuing 1% cost differential can easily translate into a $100,000 shrinkage at retirement. Try out your own assumptions in the calculator at www.forbes.com/tool/toolbox/calc/fundcalc.asp.

The main tables in this issue, beginning on page 130, cover domestic and international stock funds. For performance and other data on fixed-income funds and stock funds too new to be graded, turn to Forbes Digital Tool Mutual Fund Center, www.forbes.com/funds.

The Web site has information on fund minimums and sales commissions, and also allows you to screen for funds according to investment objective, cost, performance and other features. ■



{After 32 years

In the Quest for High Performance, So

By John Cafa

If you're an automotive designer, there isn't a more challenging or, ultimately, a more rewarding assignment than to be given the opportunity

{ The new lighter, stiffer hardtop takes Corvette performance capabilities to the ultimate degree. }

to create the next Corvette. It's not something we take lightly. Great automotive design and Corvette have gone together since the very first one in 1953. It's about heritage, passion, tradition and the future, all at once. And the fact that any new Corvette design must speak loudly of the performance potential that lies underneath the skin. The new Corvette hardtop would certainly have to measure up to some pretty lofty standards.

Our Future Must Start With Our Past. Our past is really important to the Corvette Design Team. Each and every day, we live and breathe Corvette history. Legends like the Corvette SS. The original Sting Ray. The '63 Coupe. The Mako Shark. It's all there for us to see whenever we turn a corner in the halls of our design studios. From memorable street cars and significant race cars to forward-looking concept cars and design studies, we feel the

{ Detailed aerodynamics: Like all Corvette mod

presence of every Corvette that e
before. Which is exactly why it's suc
to have the opportunity to design t
Because as designers, we don't ju
new Corvette, we get a chance to m

T h e N e x t C o r v

p Corvette is back.}

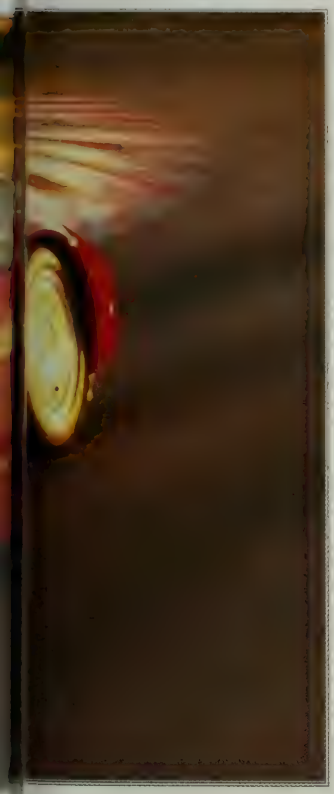
es You Have to Get Back to the Basics.

er, Corvette

is designed to manage air flow and reduce drag.}

ardtop Is the Essence of Corvette.

ra of the competition Grand Sport, a configuration has always meant the erformance Corvette, and the new no exception. To accentuate the purity of the shape, we created a minimal "greenhouse," getting back to the functional simplicity of all sports cars. By doing this, we enhanced the taut, muscular fenders, elegant wheel openings and aggressive wheels. We feel the look emphasizes the true spirit of the car. The net impact we were going for is one of no-nonsense power and pure performance; in other words, the very essence of what Corvette is all about.



For Purists, It's the Ultimate Corvette. We didn't want this Corvette to lack for anything. After all, this was the first fixed-roof Corvette in 32 years, so it had to have all the performance ingredients that make the new convertible and coupe so special to begin with. The Corvette Design Team went to work from there. Starting with its lighter-weight structure consisting of a strong perimeter frame combined with a center backbone (the C5 was already over four times stiffer than the previous generation), the new hardtop configuration is even more rigid for enhanced road "feel" and overall solidity. From there, this new Corvette gets all the right stuff: all-aluminum 5.7-liter V8 with sequential-port fuel-injection, 345 horsepower at 5600 rpm, 350 lb.-ft. of torque at 4400 rpm and electronic "drive-by-wire" throttle control. Close-ratio six-speed, rear-mounted manual transmission. Limited slip differential. Speed-sensitive, variable-effort, rack-and-pinion power steering. Huge 4-wheel, ventilated power disc brakes. 17"x 8.5" aluminum wheels in the front, 18"x 9.5" in the rear with Goodyear Eagle F1 GS high-performance, extended-mobility tires. Lightweight aluminum suspension pieces and standard Z51 Performance Handling Package (which includes stiffer springs, larger stabilizers and larger mono tube shocks). In short, there's enough performance hardware here to please even the most hard-core enthusiasts. And that's what it's all about, really. Performance for performance sake. For purists, it is easy to see why the hardtop is the ultimate Corvette.

{The rear-mounted transmission in Corvette contributes to the excellent weight distribution and responsive performance.}

Work? It's a Labor of Love. To say everyone here on the Corvette Design Team loves these cars is an understatement. We drive them. We collect them. We even race them. We're Corvette enthusiasts through and through. That's why we love the new hardtop. It represents everything Corvette stands for: Power. Passion. Advanced Technology. Performance. And The Future. Drive one and you'll see what we mean.

Call 1-800-950-2438
or visit www.chevrolet.com.

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t e

BEST BUYS - STOCK FUNDS

Market Performance UP	Market Performance DOWN	FUND/800 phone number	5-year annualized total return	Total return 7/31/98 to 8/31/98	Assets 11/30/98 ($mil)	Weighted average P/E	Median market cap ($bil)	Annual expenses per $100	Minimu initia investm
		U.S. STOCK							
B	B	Vanguard US Growth/835-1510	26.2%	–14.1%	$7,922	41.9	$86.5	$0.43	$3,00
■ C	■ B	Vanguard Equity Income/835-1510	19.6	–9.8	2,023	19.4	24.4	0.42	3,00
A	A	Fidelity Growth & Income/544-8888	22.7	–13.6	35,486	30.7	47.2	0.73	2,50
C	B	Fidelity Fund/544-8888	23.1	–15.0	6,336	20.6	41.9	0.62	2,50
C	A	T Rowe Price Equity Income/638-5660	18.8	–9.7	12,325	19.8	14.4	0.81	2,50
B	C	Vanguard Growth & Income/835-1510	22.8	–15.1	2,077	19.3	26.8	0.38	3,00
B	B	Vanguard Windsor II/835-1510	21.3	–14.2	23,545	16.9	24.7	0.39	3,00
A	C	Vanguard Primecap Fund/835-1510	25.1	–15.7	8,064	24.6	11.1	0.59	3,00
B	B	Dreyfus Appreciation Fund/645-6561	24.6	–14.0	1,930	21.6	82.4	0.91	2,50
A	C	Safeco Equity Fund/426-6730	21.7	–12.9	1,463	18.3	64.3	0.79	1,00
A	B	Janus Twenty Fund/525-8983	29.6	–15.1	5,943	23.5	79.4	0.93	2,50
A	C	Mairs & Power Growth Fund/304-7404	22.9	–14.6	398	20.0	5.8	0.89	2,50
		U.S. BALANCED							
A	C	Vanguard Asset Allocation/835-1510	19.6	–8.8	3,984	21.4	55.2	0.47	3,00
B	C	Vanguard Balanced Index/835-1510	15.8	–8.5	1,211	20.7	23.9	0.20	3,00
C	A	Columbia Balanced Fund/547-1707	14.8	–7.5	811	21.3	50.0	0.66	1,00
B	A	Pax World Fund/767-1729	17.9	–5.9	608	22.3	21.3	0.89	25
A	C	Vanguard Wellington Fund/835-1510	16.3	–7.7	21,340	NA	20.9	0.31	3,00
A	B	Preferred Asset Allocation/662-4769	18.0	–4.8	138	21.4	51.4	0.99	1,00
D	A	Vanguard Wellesley Income/835-1510	12.6	–2.4	7,616	NA	18.7	0.31	3,00
B	B	Fidelity Puritan Fund/544-8888	15.2	–9.8	22,378	19.8	56.1	0.67	2,50
B	B	JP Morgan Diversified/521-5411	15.1	–8.7	98	NA	37.8	0.98	2,50
B	C	BT Investment–Lifecycle Long Range/730-1313	15.5	–8.0	111	21.2	44.6	1.00	2,50
		FOREIGN STOCK							
A	■ B	Vanguard European Stock Index/835-1510	19.3	–12.5	2,340	28.0	29.2	0.35	3,000
B	■ B	T Rowe Price European Stock/638-5660	18.6	–11.6	999	28.1	24.5	1.12	2,500
A	■ D	Growth Fund of Spain/621-1048	24.0	–14.9	387[1]	NA	NA	1.25	1,000
B	C	Invesco Intl–European/525-8085	18.1	–14.8	322	36.9	11.8	1.36	1,000
■ C	■ A	59 Wall Street–European/625-5759	13.8	–14.6	153	28.4	33.7	1.33	100,000
B	D	Vanguard International Growth/835-1510	10.1	–13.2	6,843	28.1	23.1	0.57	3,000
C	B	Scudder International Fund-I Shares/225-2470	9.8	–13.0	2,633	30.2	16.8	1.15	2,500
■ C	■ A	Hotchkis & Wiley–International/236-4479	9.0	–14.1	1,026	17.0	7.8	1.00	10,000
B	C	Fidelity Overseas Fund/544-8888	9.3	–18.0	3,684	23.5	15.4	1.14	2,500
C	B	T Rowe Price International Stock/638-5660	8.9	–12.9	9,843	28.2	17.5	0.88	2,500
		GLOBAL STOCK							
A	B	Janus Worldwide Fund/525-8983	19.3	–14.3	10,366	NA	23.2	1.02	2,500
A	B	New Perspective Fund/421-4120	16.5	–14.1	16,096	NA	27.2	0.82	250
D	A	USAA Invest–Cornerstone Strategy/382-8722	10.3	–10.4	1,399	3.6	4.2	1.06	3,000
A	B	Gabelli Global Telecommunications/422-3554	16.7	–15.6	114	NA	8.5	1.72	1,000
C	A	Tweedy, Browne Global Value/432-4789	13.6	–13.4	1,932	NA	2.5	1.58	2,500
B	A	Capital World Growth & Income/421-4120	15.4	–12.9	7,207	NA	9.7	0.85	1,000
C	A	Merrill Lynch Global Utility-D/637-3863	14.4	–8.0	353	9.6	13.6	1.07	1,000
B	B	Scudder Global Fund/225-2470	11.6	–12.7	1,554	NA	11.9	1.37	2,500
D	A	Fremont Global Fund/548-4539	9.5	–11.2	664	15.0	15.8	0.87	2,000
B	C	USAA Invest–World Growth/382-8722	11.0	–17.0	319	NA	11.9	1.20	3,000
		INDEX							
B	B	Vanguard 500 Index/835-1510	24.0	–14.5	48,265	21.6	54.1	0.20	3,000
■ B	■ B	T Rowe Price Equity Index 500/638-5660	23.7	–14.5	1,834	21.4	53.9	0.40	2,500
■ B	■ B	Spartan Market Index/544-8888	23.7	–14.5	3,698	21.4	49.3	0.44	10,000
■ B	■ B	Dreyfus S&P 500 Index/645-6561	23.4	–14.5	1,368	21.4	54.9	0.57	2,500

Five-year return 12/31/93 through 12/31/98. ■ Fund rated for three periods only; maximum allowable grade A. NA: Not applicable or not available. [1]As of October 1998.

Sources: Forbes; Lipper, Inc.; Morningstar, Inc.

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BEST BUYS - BOND FUNDS

Market Performance UP ▲	Market Performance DOWN ▼	FUND/800 phone number	5-year annualized total return	SEC yield	Assets 11/30/98 ($mil)	Weighted average maturity (years)	Weighted average duration (years)	Annual expenses per $100	Minim initia inyestn
		TAXABLE–U.S. TREASURY							
A	D	Vanguard Admiral L-T Treasury/835-1510	9.8%	6.1%	$290	18.5	10.5	$0.15	$50,0
A	D	Vanguard Admiral I-T Treasury/835-1510	7.3	5.9	814	6.6	5.4	0.15	50,0
A	D	Vanguard Long-Term Treasury/835-1510	9.0	6.0	989	18.5	10.5	0.25	3,0
D	B	Vanguard Admiral S-T Treasury/835-1510	6.0	5.7	729	2.8	2.2	0.15	50,0
		TAXABLE–GINNIE MAE							
C	B	Vanguard GNMA Fund/835-1510	7.4	7.0	8,534	5.6	4.2	0.27	3,0
C	C	USAA Invest–GNMA Trust/382-8722	7.3	6.7	341	9.5	6.1	0.30	3,0
C	C	Spartan Ginnie Mae/544-8888	6.9	6.8	575	5.5	1.6	0.51	10,0
C	B	Amer Century-Benham GNMA-Inv/345-2021	6.8	6.5	1,225	NA	1.5	0.55	2,5
		TAXABLE–JUNK							
B	B	Northeast Investors Trust/225-6704	10.3	8.2	2,129	8.0	NA	0.69	1,0
A	D	Vanguard High Yield Corp/835-1510	8.7	8.4	4,452	NA	4.8	0.29	3,0
B	A	Fidelity High Income/544-8888	10.8	8.3	2,431	8.4	NA	0.80	2,5
A+	F	Nicholas Income Fund/227-5987	8.2	NA	249	7.1	NA	0.55	5
		TAXABLE–SHORT-TERM							
D	B	Vanguard Short-Term Corp/835-1510	6.1	6.0	4,608	2.6	2.2	0.25	3,0
D	A+	Harbor Short Duration/422-1050	5.8	5.4	159	4.4	1.0	0.33	2,0
D	A	USAA Short-Term Bond/382-8722	5.9	6.0	144	2.7	2.3	0.50	3,0
D	A	Hotchkis & Wiley–Low Duration/236-4479	7.4	6.5	188	3.1	1.9	0.58	10,0
		TAXABLE–MEDIUM-TERM							
B	C	Vanguard Bond Market Index/835-1510	7.2	6.4	4,838	7.9	4.4	0.20	3,0
B	C	Standish Fixed Income/729-0066	6.5	6.6	3,217	9.9	5.5	0.38	100,0
A	D	USAA Mutual–Income/382-8722	7.6	6.4	1,707	9.3	NA	0.39	3,0
B	C	Dodge & Cox Income Fund/621-3979	7.5	NA	693	9.7	4.0	0.50	2,5
		TAXABLE–LONG-TERM							
A	D	Vanguard Intermediate-Term Corp/835-1510	7.1	6.4	830	15.1	5.3	0.25	3,0
C	B	T Rowe Price Spectrum–Income/638-5660	8.5	6.1	1,887	11.5	5.4	0.53	2,5
B	D	Excelsior–Intermed-Term Managed Inc/446-1012	6.6	5.6	89	10.4	NA	0.63	5
B	C	JP Morgan Bond Fund/521-5411	6.7	6.4	170	12.1	5.2	0.66	2,5
		MUNICIPAL–SHORT-TERM							
F	A+	Vanguard Limited Term Tax-Exempt/835-1510	4.6	4.1	1,979	3.3	2.9	0.19	3,00
F	A+	Vanguard Short-Term Tax-Exempt/835-1510	3.9	3.8	1,489	1.2	1.1	0.19	3,00
F	A+	USAA Tax-Exempt–Short-Term/382-8722	4.8	4.1	878	2.8	2.3	0.41	3,00
D	A	Spartan Short-Intermed Muni Income/544-8888	4.4	5.5	713	3.2	2.7	0.55	10,00
		MUNICIPAL–MEDIUM-TERM							
C	B	USAA Tax-Exempt–Intermediate/382-8722	6.1	4.7	1,902	9.0	5.4	0.37	3,00
D	A	Vanguard Intermediate-Term Tax-Ex/835-1510	5.6	4.4	6,793	6.6	5.7	0.19	3,00
D	A	Excelsior Tax-Ex–Intermed/446-1012	5.6	4.0	251	8.0	NA	0.58	50
C	B	Spartan Intermediate Muni Income/544-8888	5.5	4.5	900	8.6	5.3	0.56	10,00
		MUNICIPAL–LONG-TERM							
A	C	Vanguard High Yield Tax-Exempt/835-1510	6.4	4.9	2,266	12.2	7.3	0.19	3,00
A	D	Vanguard Long-Term Tax-Exempt/835-1510	6.2	4.8	1,260	10.7	7.2	0.19	3,00
A	D	Vanguard Insured Long-Term Tax-Ex/835-1510	6.1	4.8	2,052	12.4	7.3	0.19	3,00
A	C	USAA Tax-Exempt–Long-Term/382-8722	5.9	4.9	1,995	16.6	6.3	0.37	3,00
		MUNICIPAL–ONE-STATE							
A	D	Vanguard Calif Insured L-T Tax-Ex/835-1510	6.4	4.8	1,198	11.0	7.7	0.19	3,00
B	D	Spartan Massachusetts Muni Inc/544-8888	5.8	4.3	1,187	13.5	6.6	0.56	10,00
B	D	Vanguard NJ Insured L-T Tax-Ex/835-1510	5.8	4.7	937	7.9	6.0	0.20	3,00
B	C	Vanguard NY Insured L-T Tax-Exempt/835-1510	6.0	4.7	1,130	9.4	6.5	0.20	3,00
B	C	Vanguard Penn Insured L-T Tax-Ex/835-1510	5.9	4.8	1,741	9.0	6.3	0.19	3,00

Five-year return 12/31/93 through 12/31/98. NA: Not applicable or not available.

Sources: Forbes; Lipper, Inc.; Morningstar, In

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Foreign stock funds are tabulated on pages 152 154. Bond funds are covered in our summer funds is *(Aug. 24, 1998 and Aug. 23, 1999)* and on our Web s www.forbes.com/funds.

Market Performance UP ▲	Market Performance DOWN ▼	FUND/phone number	ANNUALIZED TOTAL RETURN 8/31/87 to 12/31/98	ANNUALIZED TOTAL RETURN 5-year Pretax	ANNUALIZED TOTAL RETURN 5-year Aftertax	Assets 11/30/98 ($mil)	Weighted average P/E	Median market cap ($bil)	Maximum sales charge	Annu expens per $1
		Standard & Poor's 500 stock average	**15.5%**	**24.0%**						
		Forbes stock fund composite	**13.1%**	**17.3%**			**22.3**	**$18.3**		**$1.0**
C	■ B	**AAL Capital Growth Fund-A**/800-553-6319	—*	22.0%	20.4%	$2,306	31.5	$42.4	4.00%	$1.0
B	D	**AARP Growth–Capital Growth**/800-225-2470	13.8%	18.8	16.5	1,202	20.1	38.3	none	0.9
C	A	**AARP Growth–Growth & Income**/800-225-2470	13.2	18.1	15.2	6,604	15.4	18.5	none	0.6
A	D	**Acorn Fund**/800-922-6769	14.0	12.7	10.1	3,619	4.6	1.4	none	0.5
D	B	**Advantus Horizon Fund-A**/800-665-6005	13.6	21.0	17.5	55	25.7	47.7	5.00	1.4
C	B	**AIM Advisor–Large Cap Value-A**/800-347-1919	12.9	18.7	16.5	171	22.8	16.5	5.50	1.4
C	A	**AIM Blue Chip-A**/800-347-1919	14.7	24.1	22.1	828	24.1	30.0	5.50	1.2
A+	F	**AIM Equity–Aggressive Growth**/800-347-1919	15.8	17.4	16.6	3,695	27.3	0.8	†	1.1
D	A	**AIM Equity–Charter-A**/800-347-1919	14.5	19.7	17.0	4,620	20.5	50.3	5.50	1.1
A	D	**AIM Equity–Constellation-A**/800-347-1919	15.5	16.5	15.1	14,162	27.6	4.1	5.50	1.1
C	C	**AIM Equity–Weingarten-A**/800-347-1919	14.7	21.5	17.5	6,402	18.8	16.5	5.50	1.1
■ C	■ D	**AIM Mid Cap Equity-A**/800-347-1919	—*	12.4	9.4	515	12.8	2.3	5.50	1.4
D	D	**AIM Select Growth-A**/800-347-1919	11.2	18.2	16.2	625	35.3	9.6	5.50	1.1
B	C	**AIM Summit Fund**/800-347-1919	14.5	21.3	18.7	1,656	25.0	9.1	**	0.7
A	C	**AIM Value Fund-A**/800-347-1919	18.3	21.3	19.2	13,444	16.0	23.5	5.50	1.1
B	C	**Alger Fund–Growth-A**/800-992-3863	16.3	21.7	19.5	364	41.6	39.4	4.75	1.3
B	■ D	**Alger Fund–Small Capitalization-A**/800-992-3863	—*	8.6	7.3	573	32.1	1.8	4.75	1.3
B	D	**Alliance Fund-A**/800-221-5672	12.4	15.4	10.3	1,301	19.7	3.5	4.25	1.0
C	B	**Alliance Growth & Income-A**/800-221-5672	13.4	20.7	16.8	1,409	18.4	15.3	4.25	0.9
C	C	**Amcap Fund**/800-421-4120	13.8	20.0	16.0	4,373	21.4	19.4	5.75	0.6
A+	F	**Amer Century–20th Giftrust**/800-345-2021	13.7	7.4	6.1	972	22.3	1.2	none	0.9
C	C	**Amer Century–20th Growth-I**/800-345-2021	13.4	19.2	14.8	5,172	20.6	46.2	none	1.0
C	■ D	**Amer Century–20th Heritage-I**/800-345-2021	—*	10.3	7.8	1,312	22.5	3.1	none	0.9
D	B	**Amer Century–20th Select-I**/800-345-2021	12.7	19.3	14.8	4,955	23.2	74.7	none	1.0
A	D	**Amer Century–20th Ultra-I**/800-345-2021	18.8	20.1	17.1	22,205	28.0	64.3	none	1.0
B	F	**Amer Century–20th Vista-I**/800-345-2021	7.4	5.2	3.9	1,749	30.6	2.7	none	0.9

Five-year return 12/31/93 through 12/31/98 ■Fund rated for three periods only; maximum allowable grade A. *Fund not in operation or did not meet asset minimum for f period. †Closed to new investors. **Available only through monthly contractual plan. NA: Not available.

Sources: Forbes; Lipper, Inc.; Morningstar, I

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STOCK FUNDS

Market Performance UP ▲	Market Performance DOWN ▼	FUND/phone number	ANNUALIZED TOTAL RETURN 8/31/87 to 12/31/98	ANNUALIZED TOTAL RETURN 5-year Pretax	ANNUALIZED TOTAL RETURN 5-year Aftertax	Assets 11/30/98 ($mil)	Weighted average P/E	Median market cap ($bil)	Maximum sales charge	Annual expens per $1
		Standard & Poor's 500 stock average	**15.5%**	**24.0%**						
		Forbes stock fund composite	**13.1%**	**17.3%**			**22.3**	**$18.3**		**$1.0**
■ F	■ A	American Gas Index/800-343-3355	—*	13.3%	11.8%	$220	22.8	$4.0	none	$0.8
D	A+	American Mutual Fund/800-421-4120	12.9%	17.3	14.0	9,707	18.5	22.0	5.75%	0.5
D	B	American National Growth/800-231-4639	11.1	17.5	14.3	178	20.4	20.9	5.75	1.1
D	A	American National Income/800-231-4639	11.6	15.5	12.4	196	19.3	24.3	5.75	1.1
■ D	■ B	AmSouth Equity Fund-Classic/800-451-8382	—*	18.2	15.7	1,070	20.4	14.7	4.50	1.0
■ C	■ D	AmSouth Regional Equity-Classic/800-451-8382	—*	11.3	10.2	121	17.8	3.4	4.50	1.0
D	C	Amway Mutual Fund/800-346-2670	11.7	15.4	10.5	138	19.9	13.5	none	1.0
■ C	■ C	Ariel Appreciation Fund/800-292-7435	—*	18.3	15.7	190	18.4	2.8	none	1.3
C	C	Ariel Growth Fund/800-292-7435	13.3	16.0	13.0	160	17.8	1.6	none	1.2
B	D	Babson Enterprise Fund/800-422-2766	11.5	11.2	7.1	216	14.6	0.1	†	1.0
C	C	Babson Growth Fund/800-422-2766	12.8	21.9	18.3	401	22.4	20.0	none	0.8
B	C	Babson Value Fund/800-422-2766	12.4	17.3	15.9	1,418	14.5	9.9	none	0.9
A	■ D	Baron Asset Fund/800-992-2766	—*	19.9	19.6	3,499	25.5	1.6	none	1.3
D	B	Bartlett Basic Value-P/800-800-3609	11.1	16.0	12.4	130	16.3	7.0	4.75	1.1
A	C	Berger One Hundred/800-333-1001	16.1	11.2	7.4	1,777	24.7	10.7	none	1.4
B	C	Berger Small Cap Value-Inv/800-333-1001	12.9	18.5	15.1	66	18.7	0.6	none	1.6
C	D	Berwyn Fund/800-992-6757	7.8	7.7	5.2	101	13.8	0.2	none§	1.21
■ D	■ A	BlackRock–Large Cap Growth Eq-Inv/800-441-7762	—*	20.9	18.7	34	23.4	85.5	4.50	1.22
B	C	Wm Blair–Growth/800-742-7272	15.0	19.9	17.9	573	26.0	8.5	none	0.79
A	D	Brandywine Fund/800-656-3017	13.9	13.5	10.8	9,020	24.6	8.1	none	1.04
D	A	Burnham Fund-A/800-874-3863	11.9	16.9	14.7	137	20.1	70.5	5.00	1.30
F	■ C	Calvert Social Inv–Equity-A/800-368-2748	—*	11.3	9.0	153	16.6	11.9	4.75	1.29
D	A+	Capital Income Builder/800-421-4120	13.5	14.6	12.1	7,522	13.3	9.8	5.75	0.71
D	B	Capstone Growth Fund/800-262-6631	11.8	17.3	13.2	72	21.1	46.7	none	1.29
B	C	Century Shares Trust/800-321-1928	15.0	19.6	17.7	370	14.3	9.7	none	0.82
A+	D	CGM Capital Development/800-345-4048	16.2	13.4	9.0	758	17.7	3.2	†	0.82
A	■ D	Chase Vista Capital Growth-A/800-348-4782	—*	14.3	11.8	1,293	17.9	2.9	5.75	1.37
A	■ C	Chase Vista Growth & Income-A/800-348-4782	—*	16.8	13.9	2,044	18.4	18.9	5.75	1.32
D	C	CitiFunds Large Cap Growth-A/800-721-1899	10.2	21.1	17.7	260	24.7	71.3	none	1.05
B	A	Clipper Fund/800-776-5033	16.0	21.3	17.6	805	21.1	55.9	none	1.08
B	D	Colonial Select Value-A/800-426-3750	14.2	19.8	16.8	562	24.8	3.8	5.75	1.17
C	D	Colonial Small Cap Value-A/800-426-3750	8.6	15.0	14.0	550	17.4	0.8	5.75	1.32
B	B	Columbia Growth Fund/800-547-1707	15.6	21.3	18.0	1,342	22.3	32.0	none	0.71
A	D	Columbia Special Fund/800-547-1707	14.6	14.5	11.5	1,386	23.5	2.4	none	0.94
D	B	Concert Invest–Growth & Inc-A/800-451-2010	12.4	18.2	14.1	1,301	28.2	19.7	5.00	1.12
C	C	Concert Invest–Growth-A/800-451-2010	13.4	20.3	16.4	3,876	34.4	37.9	5.00	1.13
F	A+	Copley Fund/800-424-8570	10.7	11.6	11.6	79	14.1	8.2	none	1.00
■ B	■ C	Crabbe Huson Equity Fund-A/800-345-6611	—*	10.0	7.4	381	22.5	4.6	none	1.38
D	D	Crabbe Huson Special Fund-A/800-345-6611	6.2	–3.6	–5.0	372	17.0	0.4	none	1.37
C	D	Davis Growth Opportunity-A/800-279-0279	11.8	15.8	13.7	112	20.0	7.8	4.75	1.49
A	B	Davis New York Venture-A/800-279-0279	17.2	21.8	20.0	6,805	19.8	31.0	4.75	0.89
D	B	Delaware Group Decatur Income-A/800-523-4640	11.7	17.7	13.0	2,030	27.2	18.5	5.75	0.85
C	B	Delaware Group Decatur Tot Ret-A/800-523-4640	12.7	18.8	14.9	1,024	18.6	18.6	5.75	1.11
C	D	Delaware Group DelCap-A/800-523-4640	12.7	13.4	9.0	753	24.8	3.3	5.75	1.35
B	C	Delaware Group Small Cap Val-A/800-523-4640	13.9	12.1	10.1	320	13.1	1.0	5.75	1.45
A	F	Delaware Group Trend-A/800-523-4640	14.8	14.0	10.9	544	18.4	1.3	5.75	1.34
B	B	Dodge & Cox Stock Fund/800-621-3979	13.1	18.4	16.2	3,999	17.3	10.2	none	0.59
B	B	Dreyfus Appreciation Fund/800-645-6561	14.9	24.6	24.1	1,930	21.6	82.4	none	0.91
■ B	■ B	Dreyfus Disciplined Stock/800-645-6561	—*	23.1	20.8	1,584	22.2	47.2	none	0.90

Five-year return 12/31/93 through 1. 1/98 ■Fund rated for three periods only; maximum allowable grade A. *Fund not in operation or did not meet asset minimum for fu period. †Closed to new investors. §D tributor may impose redemption fee whose proceeds revert to the fund. NA: Not available.

Sources: Forbes; Lipper, Inc.; Morningstar, In

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STOCK FUNDS

Market Performance UP ▲	Market Performance DOWN ▼	FUND/phone number	ANNUALIZED TOTAL RETURN 8/31/87 to 12/31/98	ANNUALIZED TOTAL RETURN 5-year Pretax	ANNUALIZED TOTAL RETURN 5-year Aftertax	Assets 11/30/98 ($mil)	Weighted average P/E	Median market cap ($bil)	Maximum sales charge	Annual expens per $1
		Standard & Poor's 500 stock average	**15.5%**	**24.0%**						
		Forbes stock fund composite	**13.1%**	**17.3%**			**22.2**	**$18.3**		**$1.0**
D	B	**Dreyfus Fund**/800-645-6561	9.6%	12.2%	8.0%	$2,705	21.6	$27.9	none	$0.7
D	B	**Dreyfus Growth Opportunity**/800-645-6561	9.7	14.5	10.1	506	21.4	25.1	none	1.0
C	D	**Dreyfus New Leaders**/800-645-6561	11.1	11.8	9.5	844	27.5	2.4	none	1.1
F	D	**Dreyfus Premier Aggress Growth-A**/800-645-6561	–0.5	–9.5	–10.2	316	35.5	2.5	5.75%	1.5
D	C	**Dreyfus Premier Core Value-A**/800-645-6561	11.4	17.2	12.5	588	23.0	16.6	5.75	1.1
D	A	**Dreyfus Premier Value-A**/800-645-6561	10.4	10.8	7.5	258	24.4	20.9	5.75	1.1
■ B	■ B	**Dreyfus S&P 500 Index**/800-645-6561	—*	23.4	21.8	1,368	21.4	54.9	none	0.5
C	B	**Dreyfus Third Century**/800-645-6561	14.5	21.3	17.6	756	23.8	38.0	none	1.0
D	A	**Eaton Vance Growth & Income-A**/800-225-6265	12.9	19.5	15.3	147	21.9	18.3	5.75	1.0
D	C	**Eaton Vance Growth Fund-A**/800-225-6265	11.2	17.3	13.7	191	23.4	11.5	5.75	1.0
D	D	**Eaton Vance Special Equities-A**/800-225-6265	11.1	12.8	8.4	78	24.1	1.3	5.75	1.0
C	B	**Eclipse Trust–Equity**/800-872-2710	13.0	15.3	10.3	191	17.2	0.4	none	1.1
C	■ C	**Elite Growth & Income**/800-423-1068	—*	17.6	15.3	68	31.5	8.0	none	1.3
D	■ A	**Enterprise Group–Equity Income-A**/800-432-4320	—*	17.4	14.8	116	19.5	21.9	4.75	1.5
A	F	**Evergreen Aggressive Growth-A**/800-343-2898	13.3	13.7	12.5	200	24.7	8.4	4.75	1.2

Five-year return 12/31/93 through 12/31/98. ■Fund rated for three periods only; maximum allowable grade A. *Fund not in operation or did not meet asset minimum for t period. NA: Not available.

Sources: Forbes; Lipper, Inc.; Morningstar, I

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Market Performance UP	Market Performance DOWN	FUND/phone number	ANNUALIZED TOTAL RETURN 8/31/87 to 12/31/98	5-year Pretax	5-year Aftertax	Assets 11/30/98 ($mil)	Weighted average P/E	Median market cap ($bil)	Maximum sales charge	Annu expen per $1
		Standard & Poor's 500 stock average	**15.5%**	**24.0%**						
		Forbes stock fund composite	**13.1%**	**17.3%**			**22.3**	**$18.3**		**$1.0**
C	E	Evergreen Fund-A/800-343-2898	11.3%	17.5%	15.8%	$694	21.9	$3.6	4.75%	$1.4
D	A	Evergreen Fund for Total Return-A/800-343-2898	12.6	17.4	15.0	166	18.3	14.2	4.75	1.4
B	B	Evergreen Growth & Income-A/800-343-2898	14.1	18.0	16.6	915	21.0	3.6	4.75	1.4
F	A	Evergreen Income & Growth-A/800-343-2898	8.8	10.1	7.2	63	21.0	4.2	4.75	1.4
B	C	Evergreen Omega Fund-A/800-343-2898	15.1	17.9	14.7	282	46.4	22.8	4.75	1.3
F	A+	Evergreen Utility Fund-A/800-343-2898	11.4	11.9	8.8	134	20.4	4.8	4.75	0.8
B	C	Excelsior–Blended Equity-A/800-446-1012	14.2	20.9	19.1	558	23.0	72.7	none	1.0
C	B	Excelsior–Income & Growth/800-446-1012	10.7	12.8	10.1	161	18.0	4.9	none	1.0
C	C	FAM Value Fund/800-932-3271	13.7	16.0	14.6	308	17.9	0.9	none	1.2
■ C	■ C	Fasciano Fund/800-848-6050	—*	17.5	15.9	53	25.5	0.8	none	1.4
B	B	Federated American Leaders-A/800-341-7400	13.6	20.5	17.4	2,357	20.8	9.8	5.50	1.1
C	C	Federated Capital Appreciation-A/800-341-7400	12.9	20.5	18.0	174	17.9	12.7	5.50	1.2
C	D	Federated Growth Strategies-A/800-341-7400	13.2	17.6	13.7	531	21.6	7.4	5.50	1.1
B	B	Federated Stock Trust/800-341-7400	12.8	20.9	17.0	1,232	21.9	12.2	none	0.9
F	A+	Federated Utility-A/800-341-7400	13.0	13.3	9.5	1,551	15.0	5.6	5.50	1.1
A	■ B	Fidelity Advisor Growth Oppors-T/800-522-7297	—*	20.8	19.0	20,973	18.8	27.1	3.50	1.3
D	B	Fidelity Advisor Strategic Oppor-T/800-522-7297	10.8	10.6	8.5	661	14.9	0.4	3.50	1.2
■ A	■ B	Fidelity Blue Chip Growth/800-544-8888	—*	22.7	20.7	13,166	36.1	47.7	none	0.8
C	C	Fidelity Capital Appreciation/800-544-8888	12.9	15.7	12.7	2,047	17.2	6.5	none	0.8
A	B	Fidelity Contrafund/800-544-8888	19.1	21.6	19.1	30,263	20.8	25.3	3.00	0.8
A	C	Fidelity Destiny Portfolio I/800-544-8888	17.1	22.8	19.0	6,035	19.2	40.9	**	0.3
A	C	Fidelity Destiny Portfolio II/800-544-8888	17.6	22.7	18.9	3,693	19.1	40.2	**	0.5
■ B	■ C	Fidelity Disciplined Equity/800-544-8888	—*	20.0	17.1	2,452	16.8	11.0	none	0.8
B	B	Fidelity Equity-Income/800-544-8888	13.6	18.6	16.1	20,545	23.7	25.7	none	0.6
C	B	Fidelity Fund/800-544-8888	15.1	23.1	20.3	6,336	20.6	41.9	none	0.6
A	A	Fidelity Growth & Income/800-544-8888	17.5	22.7	20.5	35,486	30.7	47.2	none	0.7
A	D	Fidelity Growth Company/800-544-8888	16.6	19.3	17.1	10,524	38.3	19.4	none	0.8
■ A	■ B	Fidelity Low-Priced Stock/800-544-8888	—*	16.2	13.1	10,459	16.7	0.6	3.00	1.0
B	C	Fidelity Magellan Fund/800-544-8888	16.1	20.5	17.8	63,035	19.0	54.6	†	0.6
A	D	Fidelity OTC Portfolio/800-544-8888	15.8	20.8	18.4	3,957	37.9	6.5	none	0.8
D	A	Fidelity Real Estate Investment/800-544-8888	9.9	8.8	6.9	2,405	25.1	1.7	none	0.9
B	C	Fidelity Retirement Growth/800-544-8888	13.6	16.8	12.6	4,018	22.7	14.6	none	0.7
A+	D	Fidelity Select–Computers/800-544-8888	19.6	36.4	32.5	658	20.3	31.2	3.00	1.4
F	F	Fidelity Select–Energy Service/800-544-8888	3.6	10.0	8.4	1,269	25.6	1.4	3.00	1.4
A+	D	Fidelity Select–Financial Services/800-544-8888	17.3	24.9	21.9	475	14.9	23.7	3.00	1.4
A	A	Fidelity Select–Health Care/800-544-8888	20.0	30.5	26.4	1,638	22.1	57.3	3.00	1.3
A+	D	Fidelity Select–Home Finance/800-544-8888	19.0	21.8	18.9	1,489	17.2	2.2	3.00	1.3
A+	■ D	Fidelity Select–Regional Banks/800-544-8888	—*	26.6	24.5	1,120	15.1	24.0	3.00	1.4
A	D	Fidelity Select–Retailing/800-544-8888	18.7	21.6	21.4	395	24.4	12.5	3.00	1.4
A+	D	Fidelity Select–Technology/800-544-8888	17.9	28.8	24.9	545	22.8	10.4	3.00	1.4
D	A+	Fidelity Select–Utilities Growth/800-544-8888	16.8	20.9	17.7	318	19.1	14.5	3.00	1.4
C	D	Fidelity Trend Fund/800-544-8888	9.6	8.3	5.5	1,498	21.1	2.3	none	0.6
D	■ A	Fidelity Utilities Fund/800-544-8888	—*	18.5	15.6	1,511	22.7	11.5	none	0.8
B	C	Fidelity Value Fund/800-544-8888	12.3	14.2	10.9	7,943	19.9	3.9	none	0.8
D	B	Fifth Third Cardinal Fund/800-334-0483	13.0	19.1	15.4	293	21.1	58.2	4.50	0.7
■ A	■ D	First American Mid Cap Growth-A/800-866-7778	—*	15.1	12.0	254	27.1	4.1	4.00	1.1
■ B	■ D	First American Mid Cap Value-A/800-637-2548	—*	12.7	8.4	72	18.1	1.6	4.50	1.1
■ D	■ B	First Investors Blue Chip-A/800-221-3846	—*	18.5	16.2	379	31.8	34.5	6.25	1.4
■ B	■ B	Firstar–Equity Index-Retail/800-982-8909	—*	23.5	22.5	81	21.6	56.2	4.00	0.6

Five-year return 12/31/93 through 12/31/98 ■Fund rated for three periods only; maximum allowable grade A. *Fund not in operation or did not meet asset minimum for full period. †Closed to new investors. **Available only through monthly contractual plan. NA: Not available.

Sources: Forbes; Lipper, Inc.; Morningstar, Inc.

Market performance UP	Market performance DOWN	FUND/phone number	ANNUALIZED TOTAL RETURN 8/31/87 to 12/31/98	ANNUALIZED TOTAL RETURN 5-year Pretax	ANNUALIZED TOTAL RETURN 5-year Aftertax	Assets 11/30/98 ($mil)	Weighted average P/E	Median market cap ($bil)	Maximum sales charge	Annual expenses per $100
		Standard & Poor's 500 stock average	**15.5%**	**24.0%**						
		Forbes stock fund composite	**13.1%**	**17.3%**			**22.3**	**$18.3**		**$1.06**
D	■ A	Firstar–Growth & Inc–Retail/800-982-8909	—*	22.4%	20.2%	$135	20.1	$13.3	4.00%	$1.15
B	■ D	Firstar–Special Growth-Retail/800-982-8909	—*	13.0	10.8	149	26.7	3.3	4.00	1.13
C	A	Flag Investors Communications-A/800-767-3524	21.1%	29.3	26.5	1,113	19.8	41.4	4.50	1.14
D	■ F	Flag Investors Emerging Growth-A/800-767-3524	—*	17.0	16.1	77	26.4	0.5	4.50	1.50
F	■ A	Flex-funds–Muirfield/800-325-3539	—*	16.0	12.8	130	25.9	NA	none	1.19
C	C	Fortis Capital Fund-A/800-800-2638	12.8	18.9	14.8	360	25.6	25.0	4.75	1.18
C	D	Fortis Growth Fund-A/800-800-2638	11.8	12.9	9.4	764	30.6	4.1	4.75	1.07
D	A	Founders Blue Chip/800-525-2440	12.4	17.5	13.1	548	21.3	38.1	none	1.16
B	B	Founders Growth Fund/800-525-2440	15.7	21.0	18.0	1,730	26.5	22.4	none	1.20
B	D	Founders Special Fund/800-525-2440	11.5	9.5	6.7	324	23.1	3.0	none	1.36
A+	D	FPA Capital Fund/800-982-4372	16.0	19.7	16.6	742	17.0	1.1	†	0.84
D	B	FPA Paramount Fund/800-982-4372	8.1	3.3	–0.4	754	15.2	1.1	6.50	0.87
D	B	FPA Perennial Fund/800-982-4372	11.2	12.9	8.2	48	18.0	0.9	6.50	1.19
D	A	Franklin Asset Allocation/800-342-5236	11.0	13.5	12.3	83	21.5	14.6	5.75	1.21
A	■ B	Franklin Balance Sheet Invest/800-342-5236	—*	14.2	12.3	1,221	18.2	0.4	†	1.08
C	A	Franklin DynaTech Fund-I/800-342-5236	13.5	20.1	19.0	268	27.9	73.3	5.75	1.04
C	D	Franklin Equity Fund-I/800-342-5236	10.7	18.2	15.5	544	31.5	14.6	5.75	0.91
D	■ A	Franklin Equity Income-I/800-342-5236	—*	13.9	11.5	399	16.2	9.2	5.75	0.98
D	A+	Franklin Growth Fund-I/800-342-5236	13.2	18.5	17.8	1,594	22.2	29.6	5.75	0.89
C	A	Franklin Mutual–Beacon-I/800-342-5236	13.5	15.0	12.0	6,604	20.4	3.9	5.75	1.09
C	A	Franklin Mutual Series–Shares-I/800-342-5236	13.4	15.5	12.0	9,117	20.3	4.8	5.75	1.07
C	A	Franklin Mutual–Qualified-I/800-342-5236	13.4	15.1	11.8	5,702	21.3	4.8	5.75	1.10
D	A	Franklin Rising Dividends-I/800-342-5236	12.2	16.4	14.2	401	23.1	2.8	5.75	1.40
F	A+	Franklin Utilities Fund-I/800-342-5236	10.6	9.6	7.1	1,983	13.0	5.6	4.25	0.75
B	B	Fundamental Investors/800-421-4120	13.8	19.3	16.4	10,196	20.2	20.8	5.75	0.66
D	A	Gabelli Asset Fund/800-422-3554	15.3	17.8	15.1	1,296	19.4	4.9	none	1.34
B	■ B	Gabelli Growth Fund/800-422-3554	—*	23.2	19.0	909	21.2	19.2	none	1.43
C	■ B	Gabelli Value Fund/800-422-3554	—*	19.5	15.5	575	15.3	2.3	5.50	1.40
C	■ C	Galaxy Equity Value-Retail A/800-628-0414	—*	20.4	16.7	205	18.9	14.5	3.75	1.45
F	A+	Gateway Fund/800-354-6339	9.7	10.3	9.0	254	23.1	111.3	none	1.14
C	■ B	GMO Trust–Pelican Fund/617-346-7600	—*	17.9	14.4	228	17.2	9.5	none	0.95
B	■ C	Goldman Sachs Capital Growth-A/800-292-4726	—*	22.3	18.3	1,212	34.3	36.8	5.50	1.40
D	A	Gradison Established Value/800-869-5999	11.4	14.5	12.1	517	21.8	6.2	none	1.12
C	C	Gradison Opportunity Value/800-869-5999	10.9	12.6	10.3	151	16.9	0.7	none	1.36
D	A	Greenspring Fund/800-366-3863	9.4	9.3	7.3	171	18.8	0.6	none	1.04
C	C	Growth Fund of America/800-421-4120	15.0	20.0	17.4	12,021	20.0	18.0	5.75	0.72
C	C	Growth Fund of Washington/800-348-4782	12.3	20.3	18.8	59	16.7	13.2	4.75	1.42
A	C	Guardian Park Avenue-A/800-221-3253	16.2	22.3	19.5	2,436	21.6	52.8	4.50	0.79
A	■ D	Hancock Emerging Growth-A/800-225-5291	—*	15.9	14.2	659	24.2	0.8	5.00	1.32
C	C	Hancock Growth Fund-A/800-225-5291	12.1	15.9	13.0	348	41.2	61.3	5.00	1.48
A+	C	Hancock Regional Bank-A/800-225-5291	20.8	24.7	23.5	6,726	19.0	7.3	5.00	1.36
D	A	Hancock Sovereign Investors-A/800-225-5291	12.8	17.3	15.1	2,290	19.5	19.8	5.00	1.13
A+	F	Hancock Special Equities-A/800-225-5291	13.6	9.6	9.4	1,702	26.1	1.0	5.00	1.42
A	■ C	Harbor Capital Appreciation/800-422-1050	—*	25.2	23.2	2,850	39.3	51.2	none	0.75
D	D	Harbor Growth Fund/800-422-1050	10.1	12.8	8.6	106	26.7	1.8	none	0.92
D	■ B	Harbor Value Fund/800-422-1050	—*	18.1	13.2	169	23.7	6.6	none	0.83
A	D	Heartland Group–Value/800-432-7856	11.8	11.7	9.7	2,192	17.3	0.2	none	1.23
C	B	Heritage Capital Appreciation-A/800-421-4184	14.9	21.7	18.5	94	21.4	14.9	4.75	1.48
C	■ B	Hibernia Capital Appreciation-A/800-341-7400	—*	22.4	19.4	305	21.0	52.4	4.50	1.24

Five-year return 12/31/93 through 12/31/98. ■Fund rated for three periods only; maximum allowable grade A. *Fund not in operation or did not meet asset minimum for full period. †Closed to new investors. NA: Not available.

Sources: Forbes; Lipper, Inc.; Morningstar, Inc.

STOCK FUNDS

Market Performance UP	Market Performance DOWN	FUND/phone number	ANNUALIZED TOTAL RETURN 8/31/87 to 12/31/98	ANNUALIZED TOTAL RETURN 5-year Pretax	ANNUALIZED TOTAL RETURN 5-year Aftertax	Assets 11/30/98 ($mil)	Weighted average P/E	Median market cap ($bil)	Maximum sales charge	Annu expen per $1
		Standard & Poor's 500 stock average	**15.5%**	**24.0%**						
		Forbes stock fund composite	**13.1%**	**17.3%**			**22.3**	**$18.3**		**$1.0**
B	C	Hotchkis & Wiley–Equity Income/800-236-4479	11.9%	15.8%	11.9%	$195	16.7	$12.5	none	$0.8
B	D	Hotchkis & Wiley–Small Cap/800-236-4479	8.9	10.0	7.0	63	16.6	0.2	none	1.0
C	B	HSBC Growth & Income/800-634-2536	12.9	19.7	14.7	91	32.2	70.0	5.00%	0.8
D	A	Wayne Hummer Growth/800-621-4477	11.7	16.2	14.6	126	20.6	7.6	none	0.9
D	B	IAA Trust Growth/800-245-2100	11.6	17.7	14.8	146	20.7	46.6	none	1.1
D	B	IAI Growth & Income/800-945-3863	10.8	15.7	11.2	108	20.5	17.8	none	1.2
D	B	IAI Regional Fund/800-945-3863	11.9	12.6	8.8	534	16.7	1.9	none	1.2
■ B	■ B	IDS Blue Chip Advantage-A/800-437-4332	—*	21.1	18.5	1,730	24.1	51.6	5.00	0.8
C	D	IDS Discovery Fund-A/800-437-4332	10.9	10.6	7.2	1,061	23.5	1.8	5.00	1.1
C	C	IDS Equity Select-A/800-437-4332	13.1	17.9	14.2	1,018	22.0	7.5	5.00	0.8
C	A	IDS Equity Value-A/800-437-4332	13.3	15.3	11.6	2,416	14.5	25.2	5.00	0.8
A	D	IDS Growth Fund-A/800-437-4332	14.8	21.7	20.1	3,846	25.1	39.0	5.00	0.9
D	A	IDS Managed Allocation-A/800-437-4332	10.8	9.6	6.0	2,791	18.1	44.9	5.00	0.8
B	B	IDS New Dimensions-A/800-437-4332	16.9	21.2	19.4	10,541	28.0	51.5	5.00	0.9
D	C	IDS Progressive Fund-A/800-437-4332	8.4	12.8	9.8	549	14.9	2.5	5.00	1.0
D	A	IDS Stock Fund-A/800-437-4332	13.2	16.9	13.7	3,091	18.3	43.5	5.00	0.8
C	D	IDS Strategy Aggressive-A/800-437-4332	11.2	15.8	13.7	1,280	33.1	5.8	5.00	1.0
■ D	■ A	IDS Utilities Income-A/800-437-4332	—*	15.8	13.0	939	17.5	8.1	5.00	0.8
A	D	Invesco Dynamics Fund/800-525-8085	14.0	19.0	14.7	1,074	19.8	4.0	none	1.1
C	C	Invesco Growth Fund/800-525-8085	14.2	20.8	15.7	764	21.8	110.4	none	1.0
C	A	Invesco Industrial Income/800-525-8085	14.1	15.6	12.3	4,852	20.9	25.7	none	0.9
F	C	Invesco Strategic–Energy/800-525-8085	2.2	5.8	4.0	261	30.4	6.5	none	1.3
A+	C	Invesco Strategic–Finl Svcs/800-525-8085	21.3	23.0	20.0	1,170	12.8	15.2	none	1.1
A	B	Invesco Strategic–Health Sci/800-525-8085	20.2	24.9	21.1	962	28.3	66.0	none	0.9
A	D	Invesco Strategic–Leisure/800-525-8085	17.1	14.5	12.0	217	18.1	8.0	none	1.3
A+	D	Invesco Strategic–Technology/800-525-8085	18.3	21.5	17.7	1,072	21.1	6.3	none	1.0
D	A+	Invesco Strategic–Utilities/800-525-8085	13.2	14.5	12.7	190	11.3	11.9	none	1.1
D	A	Investment Co of America/800-421-4120	14.0	20.0	17.2	39,235	20.2	39.0	5.75	0.5
D	C	Ivy Growth Fund-A/800-456-5111	10.4	13.0	10.9	327	29.2	9.2	5.75	1.4
B	A	Janus Fund/800-525-8983	17.5	21.2	18.5	19,179	15.7	27.4	none	0.8
A	B	Janus Twenty Fund/800-525-8983	21.0	29.6	25.9	5,943	23.5	79.4	none	0.9
D	B	Janus Venture Fund/800-525-8983	14.7	14.9	11.5	1,223	22.4	1.3	†	0.8
C	B	JP Morgan US Equity/800-521-5411	14.8	20.6	15.6	399	28.7	23.7	none	0.8
B	F	JP Morgan US Small Company/800-521-5411	9.5	11.7	8.0	266	23.5	0.6	none	0.9
D	■ B	Kemper Blue Chip-A/800-621-1048	—*	18.2	15.0	463	17.9	30.9	5.75	1.2
■ C	■ B	Kemper Contrarian Fund-A/800-621-1048	—*	20.5	17.2	178	18.0	36.6	5.75	1.2
■ A	■ C	Kemper-Dreman High Return-A/800-621-1048	—*	22.6	20.9	2,900	17.1	25.2	5.75	1.2
C	C	Kemper Growth Fund-A/800-621-1048	12.5	14.0	10.6	2,649	36.7	28.1	5.75	1.0
B	D	Kemper Small Cap Equity-A/800-621-1048	10.9	11.1	7.9	968	28.5	0.8	5.75	1.0
B	D	Kemper Technology Fund-A/800-621-1048	14.1	24.1	19.1	1,177	26.9	8.5	5.75	0.8
B	B	Lazard–Equity-Open/800-823-6300	14.2	20.2	17.0	NA	23.6	17.1	none	1.2
C	B	Lexington Corp Leaders Trust/800-526-0056	13.1	18.0	13.9	537	19.8	31.9	none	0.6
D	B	Lexington Growth & Income/800-526-0056	12.1	18.9	15.2	229	19.6	21.1	none	1.1
D	A+	Lindner Dividend Fund-Investor/800-995-7777	10.2	7.5	4.2	1,800	13.6	3.5	none	0.6
D	A	Lindner Growth Fund-Investor/800-995-7777	8.1	5.7	2.0	1,400	12.4	0.5	none	0.4
A	B	Longleaf Partners Fund/800-445-9469	16.3	19.8	16.2	2,931	27.4	7.5	none	0.9
■ D	■ B	Longleaf Partners Small-Cap/800-445-9469	—*	18.5	16.1	937	17.8	1.2	†	1.2
C	B	Lord Abbett Affiliated Fund-A/800-874-3733	12.4	18.7	15.1	7,920	19.9	22.7	5.75	0.6
A	D	Lord Abbett Devel Growth-A/800-874-3733	12.9	21.8	18.1	502	29.3	0.4	5.75	1.1

Five-year return 12/31/93 through 12/31/98. ■Fund rated for three periods only; maximum allowable grade A. *Fund not in operation or did not meet asset minimum for f period. †Closed to new investors. NA: Not available.

Sources: Forbes; Lipper, Inc.; Morningstar, In

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Market Performance UP ▲	Market Performance DOWN ▼	FUND/phone number	ANNUALIZED TOTAL RETURN 8/31/87 to 12/31/98	ANNUALIZED TOTAL RETURN 5-year Pretax	ANNUALIZED TOTAL RETURN 5-year Aftertax	Assets 11/30/98 ($mil)	Weighted average P/E	Median market cap ($bil)	Maximum sales charge	Annual expens per $1
		Standard & Poor's 500 stock average	**15.5%**	**24.0%**						
		Forbes stock fund composite	**13.1%**	**17.3%**			**22.3**	**$18.3**		**$1.0**
D	C	Lord Abbett Mid-Cap Value-A/800-874-3733	11.0%	14.1%	10.3%	$334	21.2	$1.7	5.75%	$1.2
D	B	Lutheran Brotherhood Fund-A/800-328-4552	12.4	18.7	16.1	1,025	22.0	56.3	4.00	0.9
A	C	MainStay–Capital Appreciation-A/800-624-6782	16.3	22.5	21.8	2,055	40.9	27.6	5.50	1.1
C	B	MainStay–Value Fund-A/800-624-6782	11.3	12.0	9.1	1,474	20.8	6.9	5.50	1.1
A	C	Mairs & Power Growth Fund/800-304-7404	15.7	22.9	21.7	398	20.0	5.8	none	0.8
C	C	Managers Capital Appreciation/800-835-3879	15.6	21.5	17.0	92	48.3	12.7	none	1.3
C	C	Managers Income Equity/800-835-3879	12.1	17.7	12.9	67	27.4	16.3	none	1.4
A	D	Managers Special Equity/800-835-3879	14.4	15.3	13.7	686	30.0	0.7	none	1.4
C	A	MAP–Equity Fund/800-559-5535	15.3	21.9	17.3	91	19.9	3.0	4.75	0.7
C	B	MAS–Equity Fund-Inst/800-354-8185	14.3	19.4	13.1	1,261	19.3	14.6	none	0.6
■ A	■ D	MAS–Mid Cap Growth-Inst/800-354-8185	—*	22.9	17.5	432	24.1	2.9	none	0.6
A	D	MAS–Small Cap Value-Inst/800-354-8185	14.1	16.6	11.9	947	14.9	1.0	†	0.8
A	C	MAS–Value Fund-Inst/800-354-8185	13.4	17.0	13.0	3,358	16.3	7.8	none	0.6
F	A+	Mathers Fund/800-962-3863	3.7	–0.3	–1.8	141	17.9	1.3	none	1.0
A	D	Mentor Growth Portfolio-A/800-382-0016	11.6	14.5	11.6	106	26.1	0.6	5.75	1.2
B	C	Meridian Fund/800-446-6662	12.3	11.0	7.4	337	29.4	1.1	none	0.9
C	B	Merrill Lynch Basic Value-D/800-637-3863	13.0	18.0	15.6	11,135	17.5	24.9	5.25	0.8
D	A	Merrill Lynch Capital-D/800-637-3863	11.6	14.0	11.0	10,555	13.9	13.0	5.25	0.8
B	C	Merrill Lynch Growth-D/800-637-3863	12.4	10.2	8.4	8,183	25.1	2.5	5.25	1.0
B	D	Merrill Lynch Special Value-D/800-637-3863	7.7	13.0	9.8	1,044	17.2	0.4	5.25	1.3
D	■ A	Merrill Lynch Strategic Div-D/800-637-3863	—*	18.1	13.1	200	15.8	10.1	5.25	1.1
B	C	MFS Capital Opportunities-A/800-225-2606	14.7	21.4	18.5	1,089	18.4	14.3	5.75	1.3
C	C	MFS Growth Opportunities-A/800-225-2606	12.5	20.1	16.2	928	24.9	21.1	5.75	0.8
C	B	MFS Large Capital Growth-A/800-225-2606	13.9	22.2	17.1	652	18.2	14.2	5.75	1.3
A	C	MFS Mass Invest Growth Stock-A/800-225-2606	16.3	25.0	19.8	1,853	28.7	25.5	5.75	0.7
B	B	MFS Mass Investors Trust-A/800-225-2606	14.9	23.0	19.7	5,831	19.4	21.6	5.75	0.7
B	C	MFS Research Fund-A/800-225-2606	14.1	20.6	18.6	4,673	21.1	25.7	5.75	0.9
D	D	Monetta Fund/800-666-3882	10.4	7.0	4.8	165	29.6	0.4	none	1.3
C	A	MSDW Dividend Growth Secs-A/800-869-6397	13.7	18.3	17.2	15,448	20.0	24.4	5.25	1.2
■ C	■ C	MSDW Value-Added Market–Equity-A/800-869-6397	—*	16.5	15.3	1,481	26.5	8.4	5.25	1.4
D	B	MSB Fund/800-661-3938	12.5	20.3	15.9	49	20.9	35.3	none	1.4
■ C	■ B	Nations–Value Fund-Investor A/800-321-7854	—*	18.7	14.9	263	19.3	18.1	none§	1.2
C	B	Nationwide Fund-A/800-848-0920	15.3	24.1	21.5	1,516	19.1	24.8	5.50	0.6
C	B	Nationwide Growth Fund-A/800-848-0920	12.9	18.9	16.1	824	18.6	22.8	5.50	0.6
B	D	N&B Focus Fund/800-877-9700	13.7	17.6	15.1	1,384	16.3	11.1	none	0.8
■ B	■ D	N&B Genesis Fund/800-877-9700	—*	15.3	14.3	1,143	20.2	1.0	†	1.1
B	D	N&B Guardian Fund/800-877-9700	12.5	13.6	10.8	6,137	16.3	10.6	none	0.8
C	D	N&B Manhattan Fund/800-877-9700	12.0	15.8	11.8	563	18.5	3.7	none	0.9
B	B	N&B Partners Fund/800-877-9700	13.4	18.2	14.2	3,267	13.6	9.3	none	0.8
■ D	■ A	New Century Capital/781-239-0445	—*	17.2	13.0	80	28.0	NA	none	1.4
C	B	New Economy Fund/800-421-4120	14.4	16.4	13.9	4,804	18.8	16.4	5.75	0.8
C	B	New England Growth Fund-A/800-888-4823	14.0	20.6	15.2	1,483	23.3	43.5	5.75	1.1
C	B	New England Growth Oppors-A/800-888-4823	13.7	21.5	16.8	296	16.7	26.4	5.75	1.3
B	D	New England Value Fund-A/800-888-4823	10.6	16.4	12.8	428	14.3	20.0	5.75	1.3
B	D	N-A Growth Equity-A/800-225-1852	12.2	12.8	9.9	128	34.6	3.1	5.00	1.4
B	B	Nicholas Fund/800-227-5987	14.5	19.5	16.7	5,083	21.4	9.5	none	0.7
C	C	Nicholas II/800-227-5987	12.8	18.3	14.9	1,005	25.2	1.9	none	0.6
B	C	Nicholas Limited Edition/800-227-5987	14.8	15.8	12.7	316	19.8	0.6	none	0.8
D	C	North American Equity-Income-A/800-872-8037	10.2	15.2	11.7	173	24.2	14.9	4.75	1.3

Five-year return 12/31/93 through 12/31/98. ■Fund rated for three periods only; maximum allowable grade A. *Fund not in operation or did not meet asset minimum for f period. †Closed to new investors. §Distributor may impose redemption fee whose proceeds revert to the fund. NA: Not available.

Sources: Forbes; Lipper, Inc.; Morningstar, In

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STOCK FUNDS

Market Performance UP	Market Performance DOWN	FUND/phone number	ANNUALIZED TOTAL RETURN 8/31/87 to 12/31/98	ANNUALIZED TOTAL RETURN 5-year Pretax	ANNUALIZED TOTAL RETURN 5-year Aftertax	Assets 11/30/98 ($mil)	Weighted average P/E	Median market cap ($bil)	Maximum sales charge	Annual expens per $1
		Standard & Poor's 500 stock average	**15.5%**	**24.0%**						
		Forbes stock fund composite	**13.1%**	**17.3%**			**22.3**	**$18.3**		**$1.0**
D	C	Northstar Growth Fund-A/800-595-7827	12.2%	16.2%	14.1%	$94	35.0	$9.5	4.75%	$1.5
C	D	Northstar Special Fund-A/800-595-7827	11.4	9.2	8.5	332	30.0	0.8	4.75	1.4
A	F	Oberweis Emerging Growth/800-323-6166	10.9	8.3	6.3	152	40.2	0.6	none	1.4
■ C	■ A	One Group Value Growth-A/800-480-4111	—*	20.7	16.5	72	33.8	44.8	4.50	1.2
B	C	Oppenheimer Capital Appreciation-A[1]/800-525-7048	13.6	22.1	18.4	1,329	20.7	11.4	5.75	1.0
B	C	Oppenheimer Disciplined Value/800-525-7048	13.8	16.6	14.0	480	25.4	10.1	5.75	1.1
B	D	Oppenheimer Discovery Fund-A/800-525-7048	12.7	8.6	6.9	1,580	24.4	0.8	5.75	1.2
B	B	Oppenheimer Growth Fund-A/800-525-7048	13.6	17.5	13.8	1,949	22.9	4.4	5.75	1.0
■ A	■ B	Oppenheimer Main St Inc & Growth-A/800-525-7048	—*	18.7	17.0	9,460	32.2	52.8	5.75	0.9
C	A	Oppenheimer Total Return-A/800-525-7048	14.3	17.3	14.2	3,197	20.6	19.5	5.75	0.9
B	D	Pacific Horizon–Aggress Growth-A/800-346-2087	11.5	10.7	5.7	NA	30.7	3.6	5.75	
D	A	PaineWebber Growth & Income-A/800-647-1568	12.5	19.2	16.3	1,019	19.2	14.2	4.50	1.2
C	D	PaineWebber Growth Fund-A/800-647-1568	13.7	15.9	12.6	346	18.1	16.3	4.50	1.2
■ C	■ A	L Roy Papp Stock Fund/800-421-4004	—*	22.0	21.4	79	22.5	18.7	none	1.1
B	F	Parnassus Fund/800-999-3505	10.2	10.6	8.3	353	15.5	1.5	3.50	1.1
F	A+	PBHG Advisor Defensive Equity A/800-809-8008	11.6	17.2	12.5	53	21.6	44.1	none	1.34
A+	F	PBHG Growth Fund/800-809-8008	14.6	11.0	10.9	5,643	30.5	1.1	none	1.2
C	D	Phoenix Aggressive Growth-A/800-243-4361	12.6	20.2	16.1	259	40.2	28.6	4.75	1.2
D	C	Phoenix Equity Opportunities-A/800-243-4361	11.3	14.1	10.4	189	26.8	39.0	4.75	1.2
D	A	Phoenix Growth Fund-A/800-243-4361	13.3	19.3	15.2	2,598	23.9	41.3	4.75	1.1
■ D	■ C	Phoenix Multi–Mid-Cap-A/800-243-4361	—*	13.1	9.0	377	42.3	6.1	4.75	1.3
A+	C	Pilgrim Bank & Thrift-A/800-334-3444	17.7	26.3	23.1	364	18.1	4.3	5.75	1.0
C	B	Pilgrim MagnaCap-A/800-334-3444	12.6	19.9	15.8	376	21.2	24.5	5.75	1.4
■ C	■ C	Pimco Renaissance Fund-A/800-426-0107	—*	18.5	14.6	456	24.1	9.4	5.50	1.2
C	B	Pioneer Fund-A/800-225-6292	13.7	22.0	19.4	3,977	17.5	29.7	5.75	1.0
A	D	Pioneer Growth Shares-A/800-225-6292	17.3	25.2	20.9	714	19.7	23.9	5.75	1.1
D	D	Pioneer II-A/800-225-6292	9.2	11.7	8.7	7,149	14.4	8.2	5.75	0.9
D	D	Pioneer Mid-Cap Fund-A/800-225-6292	9.2	8.5	5.3	948	22.7	5.2	5.75	0.9
D	A+	T Rowe Price Capital Appreciation/800-638-5660	12.0	12.8	9.3	1,054	18.7	5.0	none	0.7
C	A	T Rowe Price Equity Income/800-638-5660	14.0	18.8	16.0	12,325	19.8	14.4	none	0.8
■ B	■ B	T Rowe Price Equity Index 500/800-638-5660	—*	23.7	22.5	1,834	21.4	53.9	none	0.4
B	B	T Rowe Price Growth & Income/800-638-5660	12.7	17.4	15.0	3,358	22.3	12.7	none	0.8
C	B	T Rowe Price Growth Stock/800-638-5660	13.5	21.0	17.6	3,980	18.0	30.3	none	0.7
A	D	T Rowe Price New America Growth/800-638-5660	15.3	18.0	16.1	1,706	25.2	6.6	none	1.0
D	C	T Rowe Price New Era/800-638-5660	7.0	9.6	6.6	1,552	22.0	6.6	none	0.7
A	D	T Rowe Price New Horizons/800-638-5660	13.1	16.3	13.8	5,016	26.3	1.0	†	0.9
A+	■ F	T Rowe Price Science & Technology/800-638-5660	—*	24.4	21.6	3,737	25.7	7.0	none	0.9
B	D	T Rowe Price Small-Cap Stock/800-638-5660	10.8	15.1	12.5	779	18.0	0.5	none	1.0
■ B	■ C	T Rowe Price Small-Cap Value/800-638-5660	—*	12.2	10.2	2,058	16.3	0.3	none§	0.9
C	B	Principal Capital Value-A/800-451-5447	11.3	18.7	15.6	539	19.6	15.5	4.75	0.6
B	C	Principal Growth Fund-A/800-451-5447	13.6	19.0	18.1	373	21.0	17.0	4.75	1.0
■ A	■ D	Principal MidCap Fund-A/800-451-5447	—*	15.1	14.5	408	21.3	1.8	4.75	1.3
C	B	Principal Preserv–S&P 100 Plus/800-826-4600	14.1	23.2	21.7	105	22.7	114.2	5.25	1.0
C	B	Putnam Equity Income-A/800-225-1581	11.7	18.7	16.8	1,391	16.6	22.1	5.75	1.0
C	A	Putnam Fund for Growth & Inc-A/800-225-1581	13.5	18.9	15.8	31,585	17.5	25.1	5.75	0.9
F	B	Putnam Global Natural Resources-A/800-225-1581	7.3	7.8	6.1	392	21.3	9.9	5.75	1.2
B	A	Putnam Health Sciences-A/800-225-1581	16.8	26.2	24.2	2,587	24.7	26.2	5.75	1.0
B	C	Putnam Investors Fund-A/800-225-1581	15.3	24.2	20.9	2,273	25.0	33.7	5.75	1.0
A	D	Putnam New Opportunities-A[2]/800-225-1581	16.8	20.6	20.1	15,496	27.5	10.7	5.75	1.0

Five-year return 12/31/93 through 12/31/98. ■Fund rated for three periods only; maximum allowable grade A. *Fund not in operation or did not meet asset minimum for f period. †Closed to new investors. §Distributor may impose redemption fee whose proceeds revert to the fund. [1]Reflects performance of Oppenheimer Regency prior to Ju 1991 merger. [2]Reflects performance of Information Sciences prior to March 1992 merger. NA: Not available.

Sources: Forbes; Lipper, Inc.; Morningstar, I

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Market Performance UP	Market Performance DOWN	FUND/phone number	ANNUALIZED TOTAL RETURN 8/31/87 to 12/31/98	ANNUALIZED TOTAL RETURN 5-year Pretax	ANNUALIZED TOTAL RETURN 5-year Aftertax	Assets 11/30/98 ($mil)	Weighted average P/E	Median market cap ($bil)	Maximum sales charge	Annual expens per $1
		Standard & Poor's 500 stock average	**15.5%**	**24.0%**						
		Forbes stock fund composite	**13.1%**	**17.3%**			**22.3**	**$18.3**		**$1.0**
A	F	Putnam OTC & Emerging Growth-A/800-225-1581	13.8%	15.3%	13.4%	$3,553	24.6	$1.1	5.75%	$1.1
B	D	Putnam Vista Fund-A/800-225-1581	14.5	19.3	17.1	4,108	30.6	4.9	5.75	1.0
A	D	Putnam Voyager Fund-A/800-225-1581	16.3	19.9	17.9	17,725	26.2	12.9	5.75	1.0
D	C	Reich & Tang Equity/800-676-6779	10.7	12.2	7.5	90	20.9	1.5	none	1.2
■ D	■ A	Reynolds Blue Chip Growth/800-773-9665	—*	28.0	27.5	61	28.4	88.7	none	1.4
B	C	Rodney Square Large Cap/800-336-9970	14.5	20.2	16.5	91	23.6	23.1	4.00	1.4
D	A	Royce Pennsylvania Mutual-Invest/800-221-4268	10.6	11.6	7.5	668	14.0	0.4	none§	0.9
A	C	Safeco Equity Fund/800-426-6730	16.0	21.7	18.8	1,463	18.3	64.3	none	0.7
A	D	Safeco Growth Fund/800-426-6730	14.3	19.0	14.3	534	22.5	0.6	none	1.0
D	B	Safeco Income Fund/800-426-6730	11.1	16.5	13.2	397	18.9	17.8	none	0.8
C	C	Salomon Brothers Capital-A/800-725-6666	11.6	19.2	14.1	185	NA	NA	4.75	1.4
B	C	Salomon Brothers Investors Fund-A/800-725-6666	12.9	20.4	16.4	706	24.9	10.1	4.75	1.0
B	C	Salomon Brothers Opportunity/800-725-6666	12.5	17.8	15.8	200	14.9	11.5	none	1.1
B	D	Scudder Development Fund/800-225-2470	11.3	12.6	9.6	863	23.0	2.1	none	1.3
C	A	Scudder Growth & Income/800-225-2470	13.4	17.8	15.1	6,716	15.0	19.7	none	0.7
B	D	Scudder Large Company Value/800-225-2470	13.1	15.5	12.6	2,197	19.4	27.2	none	0.9
B	B	Security Equity Fund-A/800-888-2461	15.8	22.1	19.2	834	21.0	20.9	5.75	1.0
F	A	Security Growth & Income-A/800-888-2461	8.8	12.8	8.7	96	22.5	6.2	5.75	1.2
B	F	Security Ultra Fund-A/800-888-2461	7.1	12.5	9.4	83	29.3	2.2	5.75	1.3
A	C	Selected American Shares/800-279-0279	15.3	22.8	20.9	2,142	19.7	36.9	none	1.0
D	D	Selected Special Shares/800-279-0279	12.0	18.3	15.2	74	18.5	3.9	none	1.3
B	D	Seligman Capital Fund-A/800-221-7844	12.5	16.8	13.3	310	23.2	5.1	4.75	1.0
D	B	Seligman Common Stock-A/800-221-7844	12.0	16.1	12.2	815	25.9	34.5	4.75	1.1
C	C	Seligman Growth Fund-A/800-221-7844	13.1	19.0	15.6	758	22.0	63.6	4.75	1.2
D	B	Sentinel Common Stock-A/800-282-3863	12.6	18.5	15.2	1,588	25.8	29.5	5.00	1.0
D	C	Sentinel Growth Fund-A/800-282-3863	10.0	16.1	10.5	[illegible]	19.5	3.5	5.00	1.4
D	C	Sentry Fund/800-533-7827	11.6	16.5	13.3	120	19.4	3.5	none	0.8
A	A	Sequoia Fund/800-686-6884	18.7	28.1	26.9	3,468	18.5	19.3	†	1.0
D	A	SG Cowen Income + Growth-A/800-262-7116	10.4	12.5	8.7	47	16.6	5.0	4.75	1.2
■ B	■ D	SG Cowen Opportunity-A/800-262-7116	—*	4.5	2.1	65	15.5	0.7	4.75	1.3
D	■ C	Shadow Stock Fund/800-422-2766	—*	12.5	8.5	50	17.5	0.1	none	1.1
A	D	SIFE Trust-Class A-II/800-524-7433	16.0	23.3	19.4	1,095	20.3	11.8	5.00	1.4
C	B	SIT Large Cap Growth/800-332-5580	14.4	23.4	20.8	82	29.3	37.4	none	1.0
B	D	SIT MidCap Growth/800-332-5580	12.8	15.3	11.0	382	27.4	4.5	none	0.9
B	D	SB Aggressive Growth-A/800-451-2010	14.1	19.0	17.5	613	18.4	10.3	5.00	1.3
D	A	SB Appreciation Fund-A/800-451-2010	12.9	18.5	15.0	3,928	28.8	42.2	5.00	1.0
C	B	SB Fundamental Value-A/800-451-2010	12.1	15.5	12.9	1,522	20.5	30.3	5.00	1.2
D	A	SB Invest–Large Cap Value-A/800-451-2010	12.1	16.8	13.7	810	26.7	27.3	5.00	0.9
D	C	SB Large Cap Blend-A [1]/800-451-2010	10.6	16.6	15.2	310	18.5	26.7	5.00	1.1
■ D	■ D	SB Small Cap Blend/800-451-2010	—*	11.4	8.5	189	24.8	1.1	5.00	1.2
B	B	Sound Shore Fund/800-943-6786	14.4	19.8	17.7	1,193	16.5	6.1	none	1.1
■ B	■ B	Spartan Market Index/800-544-8888	—*	23.7	22.5	3,698	21.4	49.3	none	0.4
C	B	Stagecoach Equity Index/800-222-8222	14.3	22.9	21.4	511	31.3	51.7	5.25	0.9
D	B	State St Research Alpha Fund-A/800-882-0052	12.0	15.6	12.5	266	15.6	2.2	4.50	1.2
C	C	State St Research Equity Invest-A/800-882-0052	12.5	18.1	15.1	191	22.8	33.6	4.50	1.2
C	B	State St Research Investment-A/800-882-0052	13.7	20.8	16.9	1,862	23.2	37.9	4.50	0.7
A	F	SteinRoe Capital Opportunities/800-338-2550	8.9	13.6	13.4	988	38.8	3.5	none	1.1
C	B	SteinRoe Growth & Income/800-338-2550	13.6	18.9	16.9	337	32.1	47.1	none	1.1
B	C	SteinRoe Growth Stock/800-338-2550	13.6	21.1	18.6	606	25.1	93.9	†	1.0

Five-year return 12/31/93 through 12/31/98 ■Fund rated for three periods only; maximum allowable grade A. *Fund not in operation or did not meet asset minimum f full period. †Closed to new investors. §Distributor may impose redemption fee whose proceeds revert to the fund. [1]Reflects performance of Direct Value prior to Marc 1994 merger. NA: Not available

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Period	CREF Stock Account Star Rating/Number of Domestic Equity Accounts Rated	CREF Bond Market Account Star Rating/Number of Fixed Income Accounts Rated	CREF Social Choice Account Star Rating/Number of Domestic Equity Accounts Rated	CREF Global Equities Account Star Rating/Number of International Equity Accounts Rated	CREF Equity Index Account Star Rating/Number of Domestic Equity Accounts Rated	CREF Growth Account Star Rating/Number of Domestic Equity Accounts Rated
Year	4/2,262	5/748	4/2,262	4/490	5/2,262	5/2,262
Year	4/1,515	5/525	4/1,515	4/286	N/A	N/A
Year	4/769	N/A	N/A	N/A	N/A	N/A

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Market Performance UP	Market Performance DOWN	FUND/phone number	ANNUALIZED TOTAL RETURN 8/31/87 to 12/31/98	ANNUALIZED TOTAL RETURN 5-year Pretax	ANNUALIZED TOTAL RETURN 5-year Aftertax	Assets 11/30/98 ($mil)	Weighted average P/E	Median market cap ($bil)	Maximum sales charge	Annual expens per $1
		Standard & Poor's 500 stock average	**15.5%**	**24.0%**						
		Forbes stock fund composite	**13.1%**	**17.3%**			**22.3**	**$18.3**		**$1.0**
C	C	SteinRoe Special Fund/800-338-2550	11.2%	8.8%	5.6%	$1,277	17.9	$1.8	none	$1.1
D	B	Stratton Growth Fund/800-634-5726	12.6	20.5	17.7	56	15.3	10.8	none	1.1
F	A+	Stratton Monthly Div REIT Shs/800-634-5726	7.0	4.0	1.7	99	13.6	0.4	none	1.0
■ A	■ C	Strong Common Stock/800-368-3863	—*	16.0	12.3	1,542	18.7	1.8	†	1.2
■ D	■ C	Strong Discovery Fund/800-368-3863	—*	8.9	6.3	399	22.4	1.3	none	1.4
C	B	Strong Opportunity Fund/800-368-3863	13.3	17.2	14.1	1,916	20.0	7.9	none	1.3
■ A	■ D	Strong Schafer Value/800-368-3863	—*	13.8	12.7	1,436	12.5	3.2	none	1.2
C	C	Tocqueville Fund/800-697-3863	11.2	14.6	11.6	65	20.0	4.1	4.00%	1.4
■ D	■ A	UAM–C&B Equity-Inst/800-638-7983	—*	17.3	11.8	154	21.6	8.0	none	0.8
■ C	■ C	UAM–DSI Disciplined Value-Inst/800-638-7983	—*	16.7	12.2	80	19.9	13.2	none	1.0
■ B	■ F	UAM–Sirach Special Equity-Inst/800-638-7983	—*	10.8	4.7	327	25.6	1.0	none	0.8
D	A	UMB Scout Stock/800-422-2766	9.5	12.1	9.4	196	26.8	5.2	none	0.8
D	A	United Accumulative Fund-A/800-366-5465	13.1	19.1	14.4	1,571	20.0	17.6	5.75	0.8
B	A	United Income Fund-A/800-366-5465	15.4	19.3	16.3	6,170	19.9	45.7	5.75	0.8
A	D	United New Concepts-A/800-366-5465	14.8	20.3	17.8	680	36.2	1.6	5.75	1.2
B	C	United Science & Technology-A/800-366-5465	16.6	25.9	22.7	1,033	35.0	16.1	5.75	0.9
D	B	United Vanguard Fund-A/800-366-5465	11.8	17.5	13.9	1,417	23.9	48.8	5.75	1.0
B	F	USAA Mutual–Aggressive Growth/800-382-8722	11.3	18.0	15.3	750	24.4	1.3	none	0.7
D	B	USAA Mutual–Growth/800-382-8722	12.0	17.1	13.4	1,416	19.9	32.6	none	0.9
D	A	USAA Mutual–Income Stock/800-382-8722	13.0	15.7	12.9	2,334	15.6	14.8	none	0.6
C	C	Value Line Fund/800-223-0818	13.6	17.7	14.0	392	39.4	21.2	none	0.8
D	A	Value Line Income Fund/800-223-0818	11.7	16.5	13.7	161	41.7	38.2	none	0.9
B	C	Value Line Leveraged Growth Inv/800-223-0818	14.9	22.8	20.4	433	39.8	27.7	none	0.8
D	D	Value Line Special Situations/800-223-0818	10.3	19.1	13.9	118	34.4	1.7	none	1.0
■ C	■ C	Van Eck/Chubb Growth & Income-A/800-544-4653	—*	14.8	12.7	67	11.6	10.6	4.75	1.0
D	C	Vanguard Energy Fund/800-835-1510	8.6	8.6	7.2	1,197	24.1	5.8	none§	0.3
■ C	■ B	Vanguard Equity Income/800-835-1510	—*	19.6	17.4	2,023	19.4	24.4	none	0.4
B	D	Vanguard Explorer Fund/800-835-1510	10.8	11.5	9.5	2,513	21.0	0.8	none	0.6
■ B	■ D	Vanguard Extended Market Index/800-835-1510	—*	16.3	14.3	2,716	19.0	1.5	0.25‡	0.2
B	B	Vanguard 500 Index/800-835-1510	15.3	24.0	23.1	48,265	21.6	54.1	none	0.2
B	C	Vanguard Growth & Income/800-835-1510	15.3	22.8	20.0	2,077	19.3	26.8	none	0.3
A	A	Vanguard Health Care/800-835-1510	20.4	28.4	26.7	4,384	20.9	13.9	none§	0.3
C	C	Vanguard Morgan Growth/800-835-1510	13.9	21.4	18.2	2,734	30.2	13.5	none	0.5
A	C	Vanguard Primecap Fund/800-835-1510	16.0	25.1	23.9	8,064	24.6	11.1	none	0.5
B	D	Vanguard Small-Cap Index/800-835-1510	9.7	12.9	10.9	2,623	17.6	0.7	0.50‡	0.2
B	B	Vanguard US Growth/800-835-1510	17.4	26.2	24.4	7,922	41.9	86.5	none	0.4
B	D	Vanguard Windsor Fund/800-835-1510	11.6	15.1	11.3	20,834	20.7	8.5	†	0.3
B	B	Vanguard Windsor II/800-835-1510	14.6	21.3	18.5	23,545	16.9	24.7	none	0.3
C	B	VanKampen Comstock Fund-A/800-421-5666	12.9	20.2	14.2	1,613	19.0	6.8	5.75	1.0
A	D	VanKampen Emerging Growth-A/800-421-5666	17.0	21.0	18.7	3,443	28.1	6.9	5.75	1.0
B	D	VanKampen Enterprise Fund-A/800-421-5666	14.1	21.3	18.3	2,283	23.2	18.8	5.75	1.0
C	B	VanKampen Growth & Income/800-421-5666	12.0	18.4	15.0	1,146	21.9	17.3	5.75	1.0
D	C	VanKampen Pace Fund-A/800-421-5666	12.1	19.6	15.1	3,328	20.2	23.7	5.75	0.9
■ C	■ A	Victory–Diversified Stock-A/800-539-3863	—*	22.6	17.8	831	19.8	18.8	5.75	1.0
■ A	■ D	Victory–Ohio Regional Stock-A/800-539-3863	—*	14.3	11.9	55	21.4	2.3	5.75	1.3
■ B	■ C	Vontobel US Value/800-527-9500	—*	21.2	16.7	128	19.7	9.2	none	1.4
B	B	Warburg Pincus Cap Apprec-C/800-927-2874	15.4	22.2	18.5	608	21.8	35.7	none	1.0
■ A	■ D	Warburg Pincus Emerg Growth-C/800-927-2874	—*	15.2	14.4	1,526	23.0	1.9	none	1.2
■ D	■ A	Warburg Pincus Growth & Inc-C/800-927-2874	—*	13.4	11.5	627	20.3	15.3	none	1.2

Five-year return 12/31/93 through 12/31/98 ■Fund rated for three periods only maximum allowable grade A *Fund not in operation or did not meet asset minimum for full period †Closed to new investors ‡Distributor may impose purchase fee, with proceeds reverting to other fund shareholders. §Distributor may impose redemption fee whose proceeds revert to the fund — Not available

Sources: Forbes; Lipper, Inc.; Morningstar, Inc.

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††Prior to November 1, 1996, Class A shares were not available; only a single no-load class of shares was offered. This rating is based upon performance of the original class. Class A shares are offered with a 5.75% initial sales charge and Rule 12b-1 fees. Since Morningstar ratings include sales loads, the ratings may have been different if the Class A load had been considered.

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Market Performance UP	Market Performance DOWN	FUND/phone number	ANNUALIZED TOTAL RETURN 8/31/87 to 12/31/98	ANNUALIZED TOTAL RETURN 5-year Pretax	ANNUALIZED TOTAL RETURN 5-year Aftertax	Assets 11/30/98 ($mil)	Weighted average P/E	Median market cap ($bil)	Maximum sales charge	Annual expens per $1
		Standard & Poor's 500 stock average	**15.5%**	**24.0%**						
		Forbes stock fund composite	**13.1%**	**17.3%**			**22.3**	**$18.3**		**$1.0**
B	D	Wasatch Aggressive Equity/800-551-1700	12.4%	13.5%	10.6%	$182	19.0	$0.4	none	$1.5
C	C	Wasatch Growth Fund/800-551-1700	12.5	16.8	13.6	142	16.2	0.4	none	1.5
B	A	Washington Mutual Investors/800-421-4120	14.8	22.1	19.4	37,179	18.1	24.4	5.75%	0.6
C	■ A	Weitz Series Fund–Value/800-232-4161	—*	21.5	18.6	349	17.0	1.8	none	1.2
■ B	■ C	Westcore–Blue Chip Fund/800-392-2673	—*	20.8	16.3	63	15.6	10.0	none	1.1
C	A	Westwood Equity Fund-Retail/800-422-3554	13.6	21.1	18.8	145	24.0	18.2	none	1.5
D	C	Winthrop Focus–Growth-A/800-225-8011	11.7	18.6	16.4	97	18.4	30.8	4.75	1.4
D	B	Winthrop Focus–Growth & Income-A/800-225-8011	12.7	19.4	16.8	174	17.5	17.2	4.75	1.3
B	C	Winthrop Focus–Small Co Value-A/800-225-8011	11.0	10.5	9.3	305	17.9	0.9	4.75	1.4
C	B	WM Growth & Income-A/800-543-8072	12.6	19.9	17.8	359	20.4	22.7	5.50	1.0
B	D	WM Northwest Fund-A/800-543-8072	14.7	20.1	18.1	305	21.2	1.4	5.50	1.0
B	D	WPG Growth & Income/800-223-3332	14.2	22.1	19.0	114	21.9	49.5	none	1.1
D	D	WPG Tudor Fund/800-223-3332	7.4	5.6	1.7	177	21.6	0.7	none	1.2
■ D	■ C	Wright Selected Blue Chip/800-888-9471	—*	14.7	11.3	250	15.8	3.0	none	1.0
■ D	■ A	Zweig Series–Strategy-A/800-272-2700	—*	10.4	8.3	1,226	13.1	3.6	5.50	1.2

Five-year return 12/31/93 through 12/31/98. ■Fund rated for three periods only; maximum allowable grade A. *Fund not in operation or did not meet asset minimum full period. NA: Not available.

Sources: Forbes; Lipper, Inc.; Morningstar, I

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Foreign stock funds

The Morgan Stanley Capital International index of emerging market stocks returned a negative 23% last year while Morgan Stanley's Europe, Australia, Far East index (which includes a heavy dose of European stocks) returned 20%.

This table is limited to open-end funds whose portfol are invested mostly in non-U.S. stocks. Note that the av age fund in this table has an expense ratio of $1.50 $100 of assets, versus $1.06 for domestic stock funds *p. 130)*. Particularly in emerging markets, fluctuations foreign currency values can affect net asset values m than do changes in local stock markets.

Market Performance UP ▲	Market Performance DOWN ▼	FUND/phone number	ANNUALIZED TOTAL RETURN 12/31/89 to 12/31/98	ANNUALIZED TOTAL RETURN 5-year Pretax	ANNUALIZED TOTAL RETURN 5-year Aftertax	Assets 11/30/98 ($mil)	Weighted average P/E	Median market cap ($bil)	Maximum sales charge	Annua expens per $10
		Morgan Stanley Capital Intl EAFE	**5.0%**	**9.2%**						
		Morgan Stanley Capital Intl Emerging Mkts	**–0.5%**	**–8.7%**						
		Forbes stock fund composite	**5.1%**	**2.6%**			**23.4**	**$10.6**		**$1.5**
■ C	■ B	AIM Developing Markets-A/800-347-1919	—*	—*	—*	$289	18.9	$3.5	4.75%	$1.85
C	■ C	AIM Emerging Markets-A/800-347-1919	—*	–14.5%	–14.7%	229	17.3	3.7	4.75	2.08
C	D	AIM Europe Growth-A/800-347-1919	5.5%	9.9	9.3	485	31.4	17.7	5.50	1.88
D	C	AIM International Growth-A/800-347-1919	4.3	3.6	0.6	199	27.8	14.6	5.50	1.91
D	F	AIM Japan Growth-A/800-347-1919	–4.3	–1.5	–2.5	104	29.1	8.3	5.50	1.94
A	D	AIM Latin America Growth-A/800-347-1919	–5.5	–11.3	–11.7	305	13.6	1.4	4.75	2.10
C	C	AIM New Pacific Growth-A/800-347-1919	–4.7	–14.1	–15.8	195	18.6	8.2	5.50	1.99
C	D	Alliance International Fund-A/800-221-5672	3.9	6.8	4.4	259	24.7	20.6	4.25	1.72
A	■ C	Alliance New Europe-A/800-221-5672	—*	16.9	14.4	167	22.7	16.5	4.25	2.05
C	A	Babson-Stewart Ivory Intl/800-422-2766	8.5	8.9	7.4	98	28.4	9.9	none	1.19
B	D	Bartlett Europe Fund-A/800-800-3609	10.8	20.1	16.1	56	26.8	18.0	4.75	2.00
C	B	Bartlett Value International-A/800-800-3609	6.3	5.4	3.4	67	19.5	6.6	4.75	1.81
■ C	■ C	Eaton Vance Greater China Grow-A/800-225-6265	—*	–11.1	–11.6	302	21.4	12.9	5.75	2.17
C	C	Enterprise Group–Intl Growth-A/800-432-4320	7.6	8.5	6.5	50	25.9	19.7	4.75	2.00
B	A+	EuroPacific Growth Fund/800-421-4120	12.1	11.3	9.5	18,733	25.5	13.9	5.75	0.90
C	C	Evergreen International Growth-A/800-343-2898	6.5	8.8	6.4	144	24.6	5.5	4.75	2.43
C	D	Excelsior–International/800-446-1012	5.2	5.9	5.1	176	24.1	7.6	none	1.43
■ B	■ D	Excelsior–Latin America/800-446-1012	—*	–8.1	–9.5	93	15.9	1.4	none	1.48
D	C	Federated Intl Equity-A/800-341-7400	6.6	8.6	6.5	168	31.4	6.3	5.50	1.68
B	■ D	Fidelity Advisor Overseas-T/800-522-7297	—*	9.1	8.2	1,142	23.5	15.7	3.50	1.61
D	A	Fidelity Canada Fund/800-544-8888	4.5	1.9	0.0	89	17.6	0.7	3.00	1.01
C	D	Fidelity Emerging Markets/800-544-8888	–5.0	–17.6	–17.9	463	12.1	2.3	3.00	1.30
B	B	Fidelity Europe Fund/800-544-8888	12.5	18.7	16.7	926	27.6	18.3	3.00	1.27
C	B	Fidelity Intl Growth & Income/800-544-8888	7.9	7.7	6.4	1,024	22.7	10.1	none	1.16
■ A	■ D	Fidelity Latin America/800-544-8888	—*	–7.2	–7.6	827	11.2	7.7	3.00	1.32
B	C	Fidelity Overseas Fund/800-544-8888	7.8	9.3	8.2	3,684	23.5	15.4	none	1.14
D	B	Fidelity Pacific Basin/800-544-8888	4.7	–4.0	–4.8	228	25.4	4.9	3.00	1.26
D	D	Fidelity Select–Prec Metals & Mins/800-544-8888	–3.4	–11.1	–11.2	123	33.3	0.7	3.00	1.62
■ C	■ B	Fidelity Southeast Asia/800-544-8888	—*	–11.1	–11.4	276	19.7	7.6	3.00	1.13
■ C	■ A	59 Wall Street–European/800-625-5759	—*	13.8	10.7	153	28.4	33.7	none	1.33
F	C	Franklin Gold Fund-I/800-342-5236	–4.4	–10.8	–11.6	283	33.9	2.5	5.75	1.05
C	■ C	GAM Europe Fund-A/800-426-4685	—*	14.1	12.1	43	23.4	16.3	5.00	1.89
A+	A+	GAM International Fund-A/800-426-4685	14.9	11.9	9.8	1,760	20.6	17.6	5.00	1.56
A	■ D	Growth Fund of Spain/800-621-1048	—*	24.0	21.8	387[2]	NA	NA	none	1.25
A	A	Harbor International Fund/800-422-1050	12.9	13.4	12.0	5,149	22.9	20.6	†	0.99
■ C	■ A	Hotchkis & Wiley–International/800-236-4479	—*	9.0	7.9	1,026	17.0	7.8	none	1.00
C	D	IDS International Fund-A/800-437-4332	6.9	6.8	5.5	1,219	32.0	19.3	5.00	1.31
D	C	IDS Precious Metals-A/800-437-4332	–1.6	–6.5	–7.0	56	40.8	0.7	5.00	1.50
B	C	Invesco Intl–European/800-525-8085	12.5	18.1	14.8	322	36.9	11.8	none	1.36
C	D	Invesco Intl–International Growth/800-525-8085	3.1	5.2	2.3	83	27.1	22.8	none	1.80

Five-year return 12/31/93 through 12/31/98. ■Fund rated for three periods only; maximum allowable grade A. *Fund not in operation or did not meet asset minimum for fi period. †Closed to new investors NA: Not applicable or not available. [1]Annualized return 3/31/92 through 12/31/98. [2]As of October 1998.

Sources: Forbes; Lipper, Inc.; Morningstar, I

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Morningstar proprietary ratings reflect historical risk-adjusted performance and are subject to change each month. Five stars is the highest ranking, representing the top 10% of funds in an investment category. Morningstar ratings are calculated from a fund's 3-year average annual returns in excess of 90-day Treasury bill returns with appropriate fee adjustments, and a risk factor that reflects fund performance below 90-day Treasury bill returns. Past performance is no guarantee of future results. Investment returns and principal values vary, and you may have a gain or loss when you sell shares. For more complete information, including risks and expenses, call for a prospectus. Read it carefully before you invest. Transamerica Securities Sales Corporation, Distributor.

FOREIGN STOCK FUNDS

Market Performance UP ▲	Market Performance DOWN ▼	FUND/phone number	ANNUALIZED TOTAL RETURN 12/31/89 to 12/31/98	ANNUALIZED TOTAL RETURN 5-year Pretax	ANNUALIZED TOTAL RETURN 5-year Aftertax	Assets 11/30/98 ($mil)	Weighted average P/E	Median market cap ($bil)	Maximum sales charge	Annual expens per $1
		Morgan Stanley Capital Intl EAFE	**5.0%**	**9.2%**						
		Morgan Stanley Capital Intl Emerging Mkts'	**–0.5%**	**–8.7%**						
		Forbes stock fund composite	**5.1%**	**2.6%**			**23.4**	**$10.6**		**$1.5**
A	B	Ivy International Fund-A/800-456-5111	10.8%	10.7%	9.9%	$2,404	24.0	$15.3	†	$1.65
D	F	Japan Fund/800-225-2470	–1.9	–1.1	–2.0	297	34.2	4.0	none	1.16
C	C	Kemper International Fund-A/800-621-1048	7.7	8.3	6.2	562	28.3	20.8	5.75%	1.64
C	C	Lexington Worldwide Emerging Mkts/800-526-0056	–1.4	–11.4	–11.8	148	18.0	1.4	none	1.76
D	B	MAS–International Equity-Inst/800-354-8185	7.0	5.6	3.2	580	19.1	9.7	none	0.69
B	C	Merrill Lynch Devel Cap Markets-D/800-637-3863	–0.8	–9.4	–10.3	780	19.6	2.5	5.25	1.78
C	■ C	Merrill Lynch Dragon-D/800-637-3863	—*	–13.0	–14.2	592	19.7	10.2	5.25	1.58
A	A	Merrill Lynch EuroFund-D/800-637-3863	14.7	17.9	13.0	1,544	18.6	18.4	5.25	1.34
A	D	Merrill Lynch Latin America-D/800-637-3863	–1.7	–9.2	–9.8	770	8.7	3.5	5.25	1.74
D	A	Merrill Lynch Pacific-D/800-637-3863	7.7	3.5	1.4	1,671	26.2	8.9	5.25	1.12
B	C	Montgomery Emerging Markets-R/800-572-3863	–1.6	–10.8	–11.3	986	17.6	2.1	none	1.67
A+	■ C	MSDW European Growth-A/800-869-6397	—*	19.4	16.7	1,717	29.1	22.3	5.25	2.13
C	C	MSDW Pacific Growth-A/800-869-6397	–0.1	–13.0	–13.6	688	21.9	7.2	5.25	2.39
B	C	Newport Tiger-A/800-426-3750	4.2	–8.0	–8.3	906	16.9	9.7	5.75	1.74
B	D	Phoenix Multi–International-A/800-243-4361	9.6	12.4	9.3	142	27.8	11.4	4.75	1.57
D	C	Pimco International-A/800-426-0107	4.9	3.3	2.0	151	26.1	14.3	5.50	2.16
B	■ B	T Rowe Price European Stock/800-638-5660	—*	18.6	16.9	999	28.1	24.5	none	1.12
D	C	T Rowe Price International Discovery/800-638-5660	3.3	0.1	–0.5	239	23.6	0.7	none§	1.45
C	B	T Rowe Price International Stock/800-638-5660	9.0	8.9	7.5	9,843	28.2	17.5	none	0.88
■ B	■ C	T Rowe Price Latin America/800-638-5660	—*	–6.4	–6.8	411	14.5	4.3	none§	1.66
C	C	T Rowe Price New Asia/800-638-5660	0.3	–11.9	–12.7	843	20.1	9.7	none	1.11
B	B	Principal International Fund-A/800-451-5447	10.4	9.8	8.3	318	19.0	5.8	4.75	1.45
D	■ A	Prudential Pacific Growth-A/800-225-1852	—*	–8.0	–8.9	150	21.9	3.6	5.00	1.37
C	A	Putnam Asia Pacific Growth-A/800-225-1581	6.1	–3.5	–4.9	625	21.5	9.4	5.75	1.54
A	■ B	Putnam Europe Growth-A/800-225-1581	—*	19.0	17.3	740	22.3	15.3	5.75	1.45
■ C	■ C	Putnam International Growth-A/800-225-1581	—*	13.2	12.2	1,868	22.2	15.3	5.75	1.59
■ D	■ A	Schroder All-Asia/800-730-2932	—*	–11.3	–11.3	44	17.9	4.3	5.25	1.57
C	D	Schroder Capital–International-Inv/800-730-2932	7.1	7.5	3.2	187	25.9	12.5	none	0.99
C	B	Scudder International Fund-I Shares/800-225-2470	8.9	9.8	7.5	2,633	30.2	16.8	none	1.15
■ A	■ A	Scudder Latin America/800-225-2470	—*	–0.7	–1.6	908	16.5	4.1	none	1.96
■ D	■ B	Scudder Pacific Opportunities/800-225-2470	—*	–13.4	–13.7	137	20.4	1.6	none	1.75
■ B	■ D	TCW/DW Latin American Growth-A/800-869-6397	—*	–9.8	–9.9	300	17.3	4.2	5.25	2.78
B	B	Templeton Developing Mkts-I/800-342-5236	4.1	–3.7	–4.9	2,262	13.7	0.9	5.75	2.03
C	A	Templeton Foreign Fund-I/800-342-5236	8.6	5.9	3.5	15,549	15.8	7.1	5.75	1.08
■ C	■ C	UAM–Acadian Emerging Mkts-Inst/800-638-7983	—*	–8.4	–8.9	75	13.6	1.5	none	1.79
A	B	United International Growth-A/800-366-5465	11.9	13.1	9.8	1,002	32.3	24.2	5.75	1.28
B	B	USAA Invest–International/800-382-8722	8.9	8.5	7.1	582	22.0	4.2	none	1.09
F	D	Van Eck Intl Investors Gold-A/800-544-4653	–7.0	–14.4	–15.0	214	24.3	1.4	5.75	1.43
A	■ B	Vanguard European Stock Index/800-835-1510	—*	19.3	18.4	2,340	28.0	29.2	0.50‡	0.35
B	D	Vanguard International Growth/800-835-1510	8.2	10.1	9.1	6,843	28.1	23.1	none	0.57
C	C	Vanguard International Value/800-835-1510	5.8	7.7	4.2	833	24.9	8.9	none	0.50
D	B	Vanguard Pacific Stock Index/800-835-1510	1.6	–4.0	–4.3	887	31.7	12.3	0.50‡	0.35
■ D	■ C	VanKampen Asian Growth-A/800-421-5666	—*	–14.8	–15.0	148	22.4	3.3	5.75	1.84
D	■ C	Victory–International Growth-A/800-539-3863	—*	7.2	6.0	105	29.6	21.3	5.75	1.73
B	B	Vontobel International Equity/800-527-9500	9.4	9.4	7.6	159	30.0	15.2	none	1.60
B	C	Warburg Pincus Intl Equity-C/800-927-2874	8.2	4.1	2.5	2,154	26.0	8.9	none	1.37
D	■ D	WM International Growth-A/800-543-8072	—*	2.6	0.9	56	19.0	7.4	5.50	1.65
D	A	Wright Intl Blue Chip Equities-S/800-888-9471	7.7	7.8	6.6	209	24.4	9.0	none	1.30

Five-year return 12/31/93 through 12/31/98. ■Fund rated for three periods only; maximum allowable grade A. *Fund not in operation or did not meet asset minimum for fi period. †Closed to new investors. §Distributor may impose redemption fee whose proceeds revert to the fund. ‡Distributor may impose redemption fee, with proceeds reverting to other shareholders. NA: Not applicable or not available. 'Annualized return 3/31/92 through 12/31/98.

Sources: Forbes; Lipper, Inc.; Morningstar, In

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$ 50,000	$0	$125	$175
$100,000	$0	$150	$275

*Based on a July 1998 survey of Fidelity and Charles Schwab for purchases placed through a representative for no-load funds such as Vanguard or T. Rowe Price. Savings may vary based on the size and nature of trades. Fees and commissions subject to change.
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By Peter Huber

Dump that fund

Bottom line: Buy-and-hold investors can beat even low-cost index funds in efficiency.

THEY SELL YOU TWO THINGS, for which they charge you too much. And they raise your taxes to boot. For doing all that, mutual funds deserve to be the next big casualty of the Web.

First, the funds sell you information. Actively managed funds sell what you hope is a smarter portfolio. But most of that information is worthless. Index funds, which sell you a carefully crafted statistical profile instead, routinely outperform most of the others.

The Web can only widen that gap. What your active-fund manager knows about Bill Gates or Alan Greenspan grows less valuable every day, because the Web makes it so easy and cheap for all other investors to know it too, and just as fast.

Perhaps, as Matthew Schifrin and Om Malik argued in this magazine two weeks ago, instantaneous Web chat and on-line trading do help inflate short-lived bubbles. The long-run effect of on-line technology is still to broaden and speed up channels of communication and thus make the market more efficient.

Then there's the matter of price. This magazine doesn't charge you 0.5% of your net worth for an annual subscription. Funds charge you that much; some charge a lot more. Fund fees plainly bear no rational relation to the cost of acquiring the portfolio information that funds convey.

Trading economies are the second thing a fund sells you. Funds ought to lower the cost of both frequent trading and diversification. Without superior information, of course, frequent trading is valueless. But diversification does supply real value, in the form of greater stability. Fidelity Investments ought to be able to buy diversity more cheaply than your Aunt Gwendolyn can buy it for herself.

That gap is closing, however. The cheapest on-line brokerages charge less than $10 a trade today; dollar trades are coming and penny trades will follow. Electronic trading must inevitably follow the same price slope as MIPS and bits. The trader's profit will end up buried entirely in the buy/sell spread, which will shrink, too.

It is already quite feasible for small investors to diversify on their own. If your average stock holding is 10,000 dollar-years (e.g., $5,000 of GM held for two years) and an on-line trade costs $16 round-trip, the two-year overhead on your self-managed portfolio is 0.16%—and far less if you buy bigger blocks or hold them longer. A portfolio of 30 or so well-chosen stocks is quite large enough to track blue-chip indexes; more volatile sectors will require more. Bottom line: Buy-and-hold investors can beat even low-cost index funds in efficiency.

The major deterrent for most investors is simply the hassle and worry. Which the Web will soon eliminate. The newsletter crowd and the smart funds will go on-line, selling pure information. They will channel suggested portfolio profiles directly to individual investors, by way of Intuit (say), which will drop it straight into Quicken on your PC. With an occasional click of your mouse, you'll then retransmit the profile of your choice to (say) E-Trade, which will rebalance your portfolio accordingly. The sale of information will be unbundled from trading. Each component will be priced close to cost.

But why bother, just to save a measly fraction of a percent here or there? Partly because measly fractions grow into double digits when they compound. Mainly because the most critical bitstream you'll feed into your portfolio software will be supplied not by your broker but by your tax accountant. To oversimplify a lot: You hang on to winners, or give them away to children or charity. You sell enough losers to generate a net capital loss of $3,000 a year. The law on writeoffs allows you to buy the losers back in 31 days.

Tax planning, stock-by-stock and trade-by-trade, is at least half the game for any serious investor. That's something no fund can ever supply. Funds cannot pass capital losses through to their shareholders, and in any event, 1040s are personal, not mutual. So-called tax-managed funds, of which a few can be found in the tables that begin on page 130, don't come close to delivering the tax benefits you can get by managing your own portfolio. ■

Peter Huber, a senior fellow of the Manhattan Institute, is the author of *Law and Disorder in Cyberspace* (Oxford Press, 1997).
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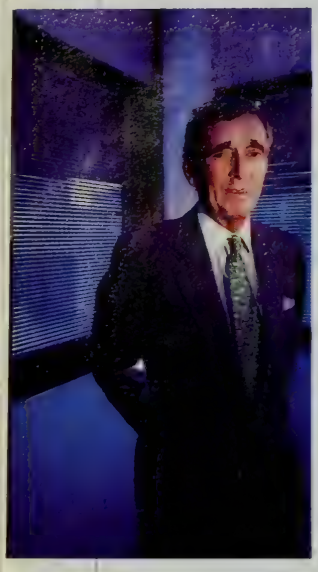
By David Dreman

The year that passed value by



Last year will go down as the year that most stocks trailed the indexes by a country mile.

IT WAS NOT A YEAR TO BE a value investor. The year began with glamour stocks like Cisco, Dell and America Online trading at high multiples of earnings and book value; it ended with these stocks trading at extremely high multiples. Value stocks, the kind I specialize in, lagged badly.

Call me stubborn, but I remain committed to value. Now is not the time to get on the Internet bandwagon. Put your money into oil, tobacco and financial stocks. The long-term superiority of value investing over glamour investing has not gone away.

All that said, I have to concede that the short-term performance of the stocks recommended here was disappointing. Although the 39 buy recommendations I made performed in line with the Barra Value Index, they still lagged the market significantly. Their average relative-to-market performance was 84%. What this means is that someone who followed all the buy recommendations published here would have ended the year 16% poorer than someone who bought the S&P 500 on the same dates. In this calculation, by the way, we have docked my recommendations—but not the hypothetical index trades—1% for commission costs.

But one bad year does not disprove the merit of value. My 1997 recommendations beat the market by a significant margin *(see my Feb. 23, 1998 column)*.

Last year was not good for my sell recommendations, either. The Internet bubble kept inflating. I said to stay away from America Online and Yahoo, and they tripled.

Before you throw in the towel on large-cap value stocks, take a look at what is going on deep inside the stock indexes. The 4,600-stock Nasdaq index, which is weighted for the capitalization of its companies, was up 40% for 1998. Twenty large-cap technology stocks, including Microsoft, Cisco and Dell Computer, were responsible for 85% of the index's gain. Take them out, do an unweighted average of the other 4,580 stocks, and you have a loss of 4%.

The same is true, to a lesser degree, of the S&P 500: A handful of sizzlers (some of the same ones that drove the Nasdaq) account for most of the S&P's 26% price gain. Last year will go down as the year that most stocks trailed the indexes by a country mile.

Now what? Don't bail out of value now. Among my worst performers last year were four in the oil service group: *Transocean Offshore Inc.* (27, RIG), *Noble Drilling Corp.* (14, NE), *Global Marine* (9, GLM) and *Tidewater* (23, TDW). I recommended them after they had been cut down 40% or 50%; they then proceeded to fall an additional 16% as the price of oil sank to $11. Oil is rebounding already. Hold on to this group.

I still like *Central Vermont Public Service Corp.* (11, CV), recommended last Mar. 23. The stock trades at a P/E of 8 on 1998 estimates, and yields 8.9%. *British Steel* (17, BST-ADR), recommended last March, has declined 24% since that time. It yields 9.6% before foreign withholding tax. Hang in. The dividend could be cut, but it will not be eliminated. Note that most investors can recoup the British withholding tax via a credit on their U.S. returns.

Provident Financial Group (36, PFGI), recommended on July 27, is a midwestern bank that should show improving results again this year. Buy more at 12 times the 1999 earnings estimate. I liked *Universal Corp.* (32, UVV) on Feb. 23. Down nearly 20% from that time, this leaf tobacco processor is not affected by the lawsuits and is cheap at 9 times earnings; yield, 3.5%.

I did well last year with *Philip Morris* (52, MO), *RJR Nabisco* (28, RN) and *British American Tobacco* (21, BTI). Stick with them. Ditto for *Federal Home Loan Mortgage Corp.* (71, FNM) and *Federal National Mortgage Corp.* (59, FRE). Long-term readers of this column will raise an eyebrow at their P/E multiples (24 and 21, respectively), but they are solid institutions with a brilliant record of controlling interest rate risk. Hang on to *Citigroup* (52, C) and *BancWest Corp.* (46, BWE).

I recommended *Exxon* (71, XON) and *Mobil* (85, MOB) before their merger proposal. If you own these in a tax-free account, take your profits and move into reserve-rich *Arco* (61, ARC), *Conoco* (21, COC) or *Texaco* (51, TX). These three will be far larger beneficiaries of rising oil prices and could also be takeover candidates. ■

David Dreman is chairman of Dreman Value Management of Jersey City, N.J. His latest book is *Contrarian Investment Strategies: The Next Generation.*

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By Robert S. Salomon Jr.

Report card

OVER THE LAST YEAR I made 48 stock recommendations in this column—39 buys and 9 sells. The buys went up, but not enough to beat the market. I feel better about the sells. These stocks performed miserably, which is just what you want your sell recommendations to do.

FORBES' statisticians give me an average relative-to-market performance of 89% for the buy recommendations. What this means is that someone acting on all the buys would have ended the year 11% poorer than someone buying the S&P 500 on the same days. The buys, but not the comparison index trades, have been docked 1% for commission costs.

I'm prouder of my sell recommendations, which went down an average 18.3% in a strong bull market. The average relative-to-market result was 69%—anything below 100% indicating success for a hypothetical short-seller who hedged using the S&P. Here again I have been penalized 1% for trading costs, by having that much added to the stock price at which a hypothetical short-seller would have covered at year-end.

All in all, it was an okay year, but nothing to brag about.

My best buy idea was *Immunex,* which has developed a drug for arthritis patients. This one ended the year up 130% from its price of 55 at the time I recommended it. Now at 143, the stock has achieved all that I expected, and I would now move on.

My best sell idea was TIG Holdings, representing property/casualty holdings spun out of Transamerica. I was skeptical because of increased competition in its basic business. The stock is off 52% from the 33 at which I panned it. A Canadian insurer is proposing to acquire the company for $16.50 a share in cash—end of story.

Impath, a medical pathology and cancer treatment analysis company, is down about 7% from where I recommended it, but this masks some violent moves. The stock has been as high as 40 and as low as 18. In early December it fell 40% in one day in reaction to an earnings warning from management. This resulted from a modest s in the mix of incoming business and no slowdown in growth. I still see a buying opportunity (28, IMPH).

> Perhaps investors have simply lost all interest in yield—why else would the S&P 500 be yielding just 1.3%?

During 1998 I recommended s eral banks as value plays. They did well until the Russians defaulted. Hang in and/or add to your posit I still like *Banc One* (55, ONE), *Ci group* (52, C), *J.P. Morgan* (109, J and *Washington Mutual* (41, WM).

I liked real estate investment tru The market didn't, despite an envi ronment of declining interest rates which should have helped the gen Perhaps investors have simply lost interest in yield—why else would t S&P 500 be yielding just 1.3%? Mo important, investors have adopted deflation mentality and shunned ta gible assets. Commodities and real estate are clearly out of fashion. In this sector I don't want to be fighting the tap Sell both *Crescent Real Estate* (23,CEI) a *Public Storage* (26, PSA).

My worst recommendation last year w *Patriot American Hospitality,* a REIT that bought an enormous number of hotels a financed them with short-term debt, bet ting that its stock would rise and enable i to float some shares and retire the debt cheaply. The stock went the other way— 75%, to a recent 7. Now Patriot is forced sell properties in a weak market with eve one knowing it is a distressed seller.

The vultures are circling. A new group investors has supplied badly needed cash purchasing a preferred stock issue. Dividends on this preferred will consume mo of PAH's cash flow from the hotels. The d dend on the common is suspended. Wors yet, shareholders may get a bill in connec tion with a possible rights offering. If the don't cooperate and ante up, the new investors will buy even more of the high-yielding preferred and exacerbate the divi dend situation. I have lost confidence and would sell PAH even at its current price.

Finally, a prediction for the new year: Profits will be better than most observers believe, up at least 8% for 1999. That wo put operating earnings of the S&P 500 at $48. In short, I am considerably more bu ish than the consensus forecast, which say that profits will be flat.

Robert S. Salomon Jr. is principal and cofounder of Stamford, Conn.-based STI Management. Research analyst: Deborah H. Tarasow.

By David P. Goldman

Buy dollars

The world needs America's stocks and bonds at least as much as Americans need Toyotas and BMWs.

EVEN ECONOMISTS who should know better fret that the U.S. trade deficit, forecast by the International Monetary Fund to hit $300 billion this year, will undermine the global economy. In the economists' version of things, pampered American consumers are running up bills with manufacturers around the world. The consumer buys a Toyota from Japan and says, "Sorry, but I can't pay cash; won't you accept some Treasury bills, Amazon.com shares or other IOUs instead?" To which the Japanese reply: "We'll let it go—this time."

At some point in this gloomy scenario, Japanese and other creditors demand payment from Americans. A run on the dollar ensues and prices on Wall Street collapse. Feeling poorer, Americans stop spending. The U.S. economy heads south, taking the rest of the world with it. The recent weakness in the dollar is supposed to prove this thesis, somehow.

Don't buy it. U.S.-based assets are still your best investments.

The doomsday argument puts the cart before the horse. These days capital moves faster than goods, and the rest of the world needs America's risk assets (corporate stocks and bonds) at least as much as Americans need Toyotas, BMWs and all the other things they import. That's because the populations of other rich countries (think Europe and Japan) are aging rapidly and their state pension schemes are all but broke. To fund their retirements, older people lend money to (or invest in) younger, more productive people. The world's most productive young people can be found in North America and in emerging markets. Given the vagaries of emerging markets (Brazil, anyone?), where do you think the money will go?

In a global economy marked by Joseph Schumpeter's "waves of creative destruction," the U.S. offers the world's investors the best opportunities to get in on the "creative" side of the phrase. A few months ago Peter Drucker argued in these pages that as long as shareholders' rights remain underdeveloped in Europe, Japan and elsewhere, European and Japanese investors will continue to channel their money into American stocks and bonds—directly or through money managers or mutual funds *(see* "Will Europe and Japan reform their corporate governance?" *Sept. 7, 1998)*. This is clearly happening. Since the start of 1996 the total return (capital appreciation plus reinvested dividends) of the S&P 500 index has exceeded the return of the Bloomberg European 500 by 16 percentage points.

More important, Wall Street's returns have beaten Europe's since Russia's bond default sparked a global credit crisis last summer.

But what about that sagging dollar? Doesn't it suggest that our trading partners are growing less willing to accept and hold dollars? Not at all. The dollar has weakened because when U.S. equity and credit markets tanked last summer, global investors guessed, correctly, that the Fed would cut interest rates. The dollar simply reacted to expectations of lower dollar interest rates (and, in the case of the dollar/yen, higher Japanese rates).

With interest rates steadying and U.S. stocks still near record highs, the dollar is strengthening. Already the much-touted euro has weakened a bit against the dollar since its year-end launch, from a high of $1.18 per euro on Jan. 4 to $1.16 on Jan. 18. Expect more of the same. I interpret the IMF's forecast of a $300 billion U.S. trade deficit this year as a signal that the rest of the world wants another $300 billion of U.S. risk assets. To buy them, the world will have to produce and sell goods to Americans at attractive prices.

Which American risk assets to buy? I'll leave individual stock picks to other FORBES columnists, since my main expertise is in bonds. I reiterate my recent recommendation to buy U.S. corporate junk bonds of about 10-year maturity, which currently yield 650 basis points more than comparable-maturity Treasurys. (U.S. junk also yields about 750 and 850 basis points more than German *bunds* and Japanese governments, respectively.) I also recommend long-term (20-plus-year), investment-grade bonds from paper companies (Champion and International Paper), insurers (Hartford Life, Aetna, Allstate) and utilities (Niagara Mohawk, Enron, Coastal Corp.). These corporates now trade in a range of 120 to 200 basis points above the Treasury curve. ■

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Edited by Matthew Schifrin

Trip's turnaround

REMEMBER the 3DO Co. (Nasdaq: THDO) of Redwood City, Calif.? It began life in 1991, when its flamboyant founder, William (Trip) Hawkins III, left Electronic Arts with stock gains aiming to challenge the then-dominant Sega and Super Nintendo videogame consoles. 3DO would create a new set-top device for playing games. The excitement sent the stock up to $47 a few months after its initial offering in May 1993 at $15.

3DO's $700 machines didn't sell. By 1997 the stock had dropped below $3.

But 3DO is not kaput. In 1997 Hawkins sold and licensed the hardware business to Samsung Electronics and Matsushita for $140 million. Now 3DO is a software company producing games for the Sony PlayStation, Nintendo64 and PCs.

COURTESY 3DO COMPANY

Tryxinos from 3DO's new game, Requiem: Avenging Angel

A new game plan to the rescue.

James Lin of Los Angeles-based Wedbush Morgan Securities thinks 3DO is a buy at a recent $4.34. The company has 11 game titles, including BattleTanx and Uprising X, which should generate sales of $51 milli and a net loss of 51 cents share, for the fiscal year th ends Mar. 31. You have to swallow hard and accept t fact that 3DO is not maki money.

BattleTanx has sold mo than 65,000 copies in thr weeks, and Lin expects it t sell 350,000 copies during the typical 15-week game life span. Month-old Upri ing X is good for 100,000 The company grosses som thing like $25 apiece for it games; at least 20 titles are in the pipeline.

Lin is projecting a profit of 11 cents a share on sales of $106 million for fiscal 2000. If the company delivers on that expectation, the stock will look cheap in hindsight.

–OM MALI

Trashy tenders

IMAGINE THIS PRANK: You take out an ad offering to buy any and all shares of Microsoft at $2 a share. Maybe a few shares would come your way from people too dumb to know what the shares are worth.

It sounds ridiculous, but just this sort of mischief is going on in the market for thinly traded convertible bonds.

Within the past two months the convertibles of Diamond Offshore Drilling, Consorcio G Grupo Dina, Rogers Communications, Pogo Producing and others have received lowball tender offers. The people perpetrating this ripoff are evidently banking on the fact that a lot of investors—or their brokers—don't know how much the bonds are really worth.

For example, fast-buck artists offered to buy Diamond Offshore's 3.75% bonds due in 2007 at $689 per $1,000 of face value. But the bond can be readily sold to a mark maker at $950. Phoenix-based investors Barry Zemel and Ira Gain tried to buy 2% of Agnico-Eagle Mines' 3.5% due in 2004 at $470, $150 below their market price. Int im Services' 4.5% convertibles due 2005 are currently being tendered $633 per bond, even though the fa market price is more than $900.

Partnerships with names like SK Partners have employed agents to solicit sellers and avoid Securities Exchange Commission scrutiny because the amounts sought are always less than 5% of the bonds outstanding *(see table)*.

Don't fall for this. If you don't have access to a Bloomberg termin or the equivalent, check the prices on ConvertBond.com, a Web site run by Stephen Seefeld, a former convertible arbitrage trader at Paloma Partners.

Convertible caution

Convertible issue	Tender price*	Recent price*	Percent sought	Acquirer
Agnico-Eagle Mines 3.5s of 2004	$470	$620	2.0%	IG Holdings
Amkor Technologies 5.75s of 2003	610	1,000	4.9	SL&H Partners
Consorcio G Grupo Dina 8s of 2004	304	485	4.9	SL&H Partners
Diamond Offshore Drilling 3.75s of 2007	689	950	4.9	S&A Partnership
Interim Services 4.5s of 2005	633	910	4.9	S&S Partners
Parker Drilling 5.5s of 2004	540	614	4.9	JB Investment Partners
Pogo Producing 5.5s of 2006	498	700	4.9	SK Partners
Rogers Communications 2s of 2005	408	630	2.0	SK Partners
Standard Commercial 7.25s of 2007	532	710	2.0	JB Investment Partners

*Per $1,000 face value.

Sources: ConvertBond.com; VAS Information Services.

Just because your bonds are subject to a tender offer doesn't mean the price is fair. These recent tender offers are nothing more than a rip-off.

ConvertBond.com provides pric- information on 850 convertibles. ys Seefeld, "This is a great scam. ese [buyers] are banking on the t that most retail brokers don't ow any better about this market." –M.S.

reen profits

CAN YOU MAKE A BUCK and save Mother Earth at the me time? This is not easy to do *e p. 62)*. But we have expecta- ns that U.S. Plastic Lumber rp. will carve out an exception the rule.

This firm in Boca Raton, Fla. asdaq: USPL) uses recycled plas- containers to make slabs of terial that look like lumber, feel e lumber and cut like lumber. But these planks are much re durable than preservative- ated wood. The stuff from U.S. stic, made out of high-density lyethylene, retails for $2.63 so a board foot, more than ee times what you would pay pressure-treated southern llow pine.

Besides selling planks for decks d other projects, U.S. Plastic aims take a nice chunk of the $1.5 bil- n annual market in railroad ties. e Chicago Transit Authority and rfolk Southern have been testing S. Plastic's ties.

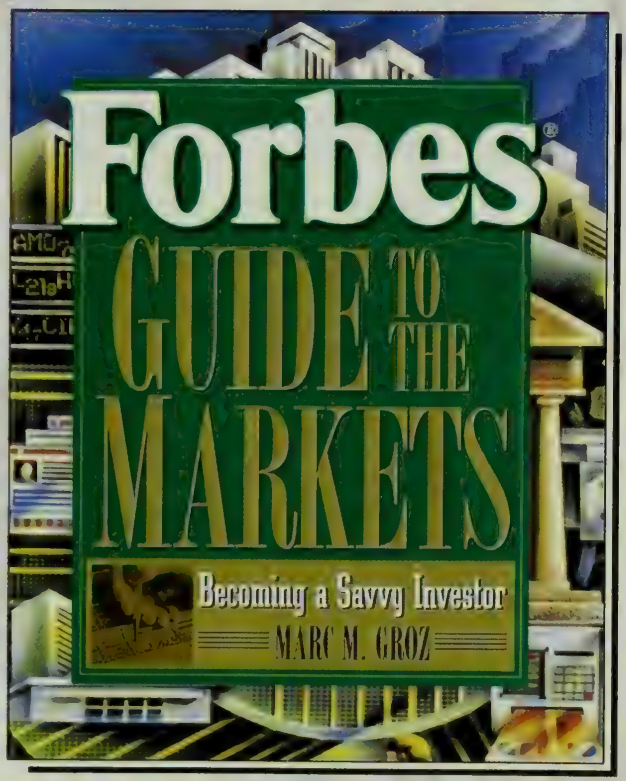
A pure play this is not. U.S. stic, with but $46 million in venue last year, got 35% of that m plastic lumber. Most of the st came from the company's ick business. It dredges seaports d uses the glop to entomb xic mines.

You're betting on the future re. Big railroad orders just ght be around the corner. ome Depot is going to start cking the plastic planks in some its southern California stores is year.

This nearly debt-free company des at $6, giving it a market lue of $107 million, or 2.3 times iling sales. This is not a cheap ck, just an interesting gamble at might pay off big.

–STEPHANE FITCH

GET
STREET SMART



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hard Cripps, Legg Mason Wood lker market analyst, expects the ck market to stay volatile in 1999. s strategy for coping is to focus on npanies with large cash flows and valuations that are buying back ir own shares. Buybacks, Cripps es, help future per-share earnings, l, compared with the alternative of reasing dividends, can boost share-lder value with lower annual tax bility.

Cripps favors insurance giant All-te (ALL, $39), which plans to nd $2 billion buying back about of its stock. At 12 times 1999's imated earnings, Allstate is cheap, says. He also likes employment vices firm CDI (CDI, $20), which ns to buy back 5% of its shares. ipps thinks its profits will rise by % in 1999, to $2.61 per share.

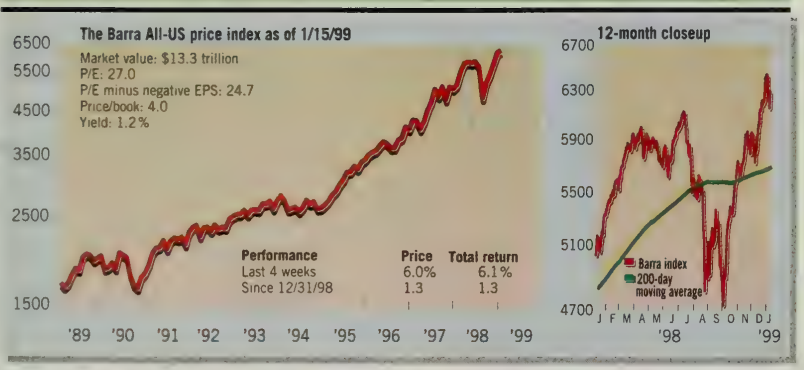
Special focus

With the S&P 500 near its alltime high, here's a good chance that some short sellers who sell borrowed stock in hope of buying it back cheaper will be caught in a squeeze if prices keep rising. The eight stocks below, all expected to be profitable in 1999, have short positions equal to at least 47% of their publicly traded shares.

Squeeze play?

Company	Recent price	Short interest*
Biomatrix	$56.13	51%
Delta Financial	8.25	65
DRS Technologies	9.81	74
Financial Sec Assurance	52.50	65
Hibbett Sporting Goods	17.94	47
Intelligroup	19.00	86
Software Spectrum	16.56	59
WHX	11.00	69

* As a percent of float (shares owned by public).
Sources: Market Guide and IBES via FactSet Research Systems.



Closing on the markets

Index or investment	2-week change	% change from 1 year ago	% change from 5-year high
Barra All-US index	1.3%	23.1%	-2.2%
S&P/Barra Growth index[1]	0.4	41.0	-2.4
S&P/Barra Value index[2]	1.9	17.0	-3.1
Dow Jones industrials	1.7	20.5	-3.1
S&P 500	1.1	29.3	-2.5
NYSE	-0.4	17.8	-2.9
Nasdaq	7.1	50.2	-1.5
PSE Tech 100[3]	8.4	69.3	-1.2
EAFE[4]	-0.7	17.4	-4.8
CRB futures index[5,6]	0.8	-15.7	-26.4
Gold[6] (Comex spot)	-0.4	-1.3	-30.9
Yen[6] (per $US)	0.3	-11.9	-22.7
Oil (W Texas Intermediate)	0.7	-29.6	-54.4

What the funds are buying and selling[7]

Buying	Recent price	Market value ($mil)	1999 EPS[8]	Selling	Recent price	Market value ($mil)	1999 EPS[8]
America Online	$146.50	$67,118	$0.56	Ocean Financial	$17.06	$252	$1.07
Micron Technology	71.31	15,225	0.00[9]	Safeguard Scientifics	36.19	1,143	0.74
Pegasus Communications	24.13	384	-8.44[9]	Stone & Webster	33.06	431	2.13
Shop at Home	11.81	275	0.06	US Liquids	22.13	272	1.20
Xircom	39.88	918	1.44	Young & Rubicam	37.25	2,435	1.33

The best and worst performing industry factors[10]

Best	2-week change	Change since 12/31/98	Worst	2-week change	Change since 12/31/98
Liquor	10.2%	10.2%	Trucking	-11.6%	-11.6%
Broadcasting, publishing	9.0	9.0	Electric utilities	-8.0	-8.0
Motor vehicles	9.0	9.0	Oil refining, distributing	-7.1	-7.1
Forest products	8.9	8.9	Railroads	-6.1	-6.1
Pollution control	8.7	8.7	International oil	-5.2	-5.2

a for period ending 1/15/99. The Barra All-US price index consists of all publicly traded U.S. common stocks for which price quotations are available and ordinary shares of foreign stocks traded on U.S. markets. ADRs, REITs and closed-end funds are uded. [1]Total return of more than 150 large-capitalization stocks that have high historical earnings growth and have predicted above-average earnings growth. [2]Total return of more than 300 large-capitalization stocks characterized by low price-to-book s, high yields and low price-to-earnings ratios. [3]A price-weighted index of 100 widely followed U.S. technology stocks. Base value 12/31/82 = 50 (adjusted). [4]A dollar-denominated capitalization-weighted index of more than 1,100 foreign stocks. Source gan Stanley Capital International. [5]Index of 21 commodity futures. [6]Source: Bridge-Commodity Research Bureau. [7]Buys and sells are tabulated by fastcheck.com, a proprietary model from the Mutual Discovery Network. For an update on the performance ese stocks, see our Web site at www.forbes.com/wallstreet. [8]Consensus estimate. [9]Flash estimate is the average of a firm's estimates received over the last four weeks. Flash estimate is printed when it differs from the consensus by at least 15%. [10]Shows n after controlling for other influences, including company size, value and growth characteristics. Multi-industry firms have proportional contributions in two or more groups. *Principal sources: Barra, Inc.; IBES Express.*

Company/business	Exchange	Offer date	Offer price	12/31/98 price	Offering ($mil)	Lead underwriter	Performance absolute	r
Conoco/oil & gas	n	10/21/98	$23.00	$20.75	$4,404	Morgan Stanley Dean Witter	–10%	
Infinity Broadcasting/radio stations	n	12/9/98	20.50	27.38	2,870	Merrill Lynch	34	
Fox Entertainment Group/TV & movie prod; broadcasting	n	11/10/98	22.50	25.13	2,808	Merrill Lynch	12	
MONY Group/insurance & financial svcs	n	11/10/98	23.50	31.31	264	Goldman Sachs	33	
Ticketmaster Online-CitySearch/on-line tickets & info svcs	o	12/2/98	14.00	56.00	98	NationsBanc Montgomery Secs	300	
InfoSpace.com/Internet content provider	o	12/15/98	15.00	38.13	75	Hambrecht & Quist	154	
Select Comfort/makes & retails air mattresses	o	12/4/98	17.00	26.44	68	Hambrecht & Quist	56	
Merkert American/food brokerage svcs	o	12/15/98	15.00	15.13	66	Wheat First Union	1	
AboveNet Communications/Internet hosting svcs	o	12/10/98	13.00	21.00	65	CIBC Oppenheimer	62	
E-Tek Dynamics/fiber-optic telecomm equipment	o	12/1/98	12.00	26.75	60	Goldman Sachs	123	

Only 336 companies went public in 1998, compared with 547 in 1997. This was the lowest number of initial public offerings since 1991, but dollar volume remained strong. With new equity capital totaling $31 billion—just 0.6% less than in 1997—1998 was the third consecutive year that underwriters raised more than $30 billion.

By dollar volume, last year's fourth quarter was particularly strong. Conoco's new issue raised a record $4.4 billion, while Infinity Broadcasting and Fox Entertainment each raised nearly $3 billion.

As ".com" became The Street's magical incantation, Internet-related IPOs gained an average 242% last year. Top performer eBay gained 1,240% over its September offer price of $18. In November theglobe.com set a different kind of record with a first-day gain of 606%. The rest of the new issues market fared poorly last year. According to Renaissance Capital in Greenwich, Conn., the average non-Internet IPO finished the year below its first-day close.

Linda Killian, portfolio manager at Renaissance Capital, expects the Internet to dominate the IPO market again in 1999. Of the 110 IPOs in the pipeline, one-fourth are for Internet companies.

The best new issues last quarter

Company/business	Offer price	Offering ($mil)	Lead underwriter	Performance absolute	rel t
uBid/on-line auctions	$15.00	$24	Merrill Lynch	611%	
Ticketmaster Online-CitySearch/on-line svcs	14.00	98	NationsBanc Montgomery Secs	300	
theglobe.com/Internet info & svcs	9.00	28	Bear Stearns	265	
EarthWeb/info tech Web site	14.00	29	JP Morgan Secs	178	
InfoSpace.com/Internet content provider	15.00	75	Hambrecht & Quist	154	

The worst new issues last quarter

Company/business	Offer price	Offering ($mil)	Lead underwriter	Performance to absolute	rel to
MegaBank Financial/savings & loan	$11.00	$16	Howe Barnes Investments	–14%	
Conoco/oil & gas	23.00	4,404	Morgan Stanley Dean Witter	–10	
21st Century Holding/insurance	7.50	9	Gilford Secs	–7	
MetroCorp Bancshares/bank	11.00	15	Legg Mason Wood Walker	–2	
Lamar Capital/bank	10.00	14	Morgan Keegan	0	

Underwriter	Total offerings	Total raised ($mil)	Industry	Total offerings	Total raise ($mil)
Morgan Stanley Dean Witter	22	$7,799	**Manufacturing**	84	$10,499
Merrill Lynch	15	7,024	**Broadcasting**	10	5,938
Goldman Sachs	23	2,984	**Services**	103	4,792
Salomon Smith Barney	19	1,835	**Telecommunications**	12	1,292
Credit Suisse First Boston	12	1,330	**Credit Institutions**	2	1,240

Note: This report covers initial public offerings of common equities with offering dates of 10/1/98 to 12/31/98, offering prices of $2.50 or more and offering values of $5 mi or more. Closed-end funds, limited partnerships and ADRs (American Depositary Receipts) of corporations already traded in foreign countries are excluded, as are real e investment trusts and spinoffs. The ending value of $100 invested in the stock, divided by the ending value of $1 invested in the market. [2]Latest 12 months.
Source: Securities Data Co.

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What makes the stars twinkle?

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Why is it that civilized people revert to the law of the jungle as soon as they board a plane?

Jetiquette

Forbes Life

Edited by Joshua Levine

By Rudy Maxa

Remember actor John Candy's portrayal of the seatmate from Hell in the movie *Planes, Trains and Automobiles*? As his final flourish in a virtual primer on bad travel manners, Candy takes off his shoes, waves his socks in the air and remarks breezily: "Oh, that feels good—I tell ya, my dogs are barking today!"

Most of us can relate. I've often caught the scent of *eau de sock* while flying. I've had strangers drooling on my shoulder as they snored their way through night flights. I've sat next to sweaty guys wearing sleeveless T shirts. I've inspected strangers' molars when they've reclined their seats into my lap. And after a half-hour of playing peek-a-boo with a rambunctious boy in the row in front of me, I've been reminded of the stand-up comedian who finally shouted, "Hey, kid, guess what? I'm always going to be here!"

There's nothing elegant about flying these days, or at least about flying coach. Blame the airlines for crowded seating, blame the rest of us for demanding low fares that necessitate slots of seats. But also blame the sad demise of travel manners. We've become a bus-station nation. We don't care what anyone thinks of our wardrobe or whether we're rude to fellow travelers. Sheryl Spivack, a George Washington University professor in the tourism and hospitality management department, suggests better "jetiquette." She thinks traveling on a plane somehow encourages people to do things they would never consider doing anywhere else in public. Like applying nail polish, clipping toenails and leaving lavatories in a disgraceful state.

Most of us wouldn't whip out toenail clippers in a restaurant. But we seem to believe we're invisible as soon as we board a plane. It's this illusion that allows three strangers to sit cheek-by-jowl—even eat meals inches apart without exchanging a word during a five-hour flight. Herewith, a modest manifesto for better flying manners:

■ The plane won't leave until everyone is boarded. You gain nothing by fighting for line position at the boarding gate. Don't.

■ Cargo goes below. I'm a big supporter of carry-on luggage, but make sure it fits where it belongs. If you're lugging something too big because you fear checking it, do us all a favor—and yourself, too—and simply ship it to your destination ahead of you.

■ I am not a dentist. When you leave your seat, why not leave it in the upright position so those behind you can at least take a deep breath?

■ If you do decide to talk to me, I am not a therapist. I'm sorry you hate your boss/spouse/neighbor. I think it's brave of you to decide to come out of the closet. Just spare me the details.

■ I am not a baby-sitter. While kind strangers should offer help to overwhelmed parents, children old enough to know how to behave should be made to behave by those who love them the most. That wouldn't be me.

■ And while enforcing a dress code is hopeless, can we at least agree that men's armpits should be covered?

Once, passengers dressed as if they were visiting a snazzy restaurant. Men wore suits, women sported hats, and for long flights, chose their sleepwear carefully. In 1940, aboard the Douglas Sleeper Transport that flew between New York and Los Angeles in *only* 19 hours, each of the 14 passengers had his or her own berth.

Today, if you're flying a long distance in coach class, you're most likely sitting upright, shifting your legs an inch here or there, hoping to avoid blood clots. We're just grateful to complete a flight without witnessing an incident of "air rage." Remember all the press late last year about a passenger who went nuts on a flight from Bangkok to Budapest aboard the Hungarian airline, Malév? The stories said he struck a pilot and tried to strangle a flight attendant before crew members tied him to a seat; a doctor on board gave him a shot of a sedative, and when the plane made an emergency landing in Istanbul, the poor guy was dead.

Okay, that's a bit harsh for your obnoxious seatmate. But in the face of the considerable obstacles to comfortable travel, couldn't we all try to act decently and keep our socks on while aloft?

The market for old wagons, carriages and carts is gearing up. All you need is plenty of space.

Carriage trade

By Robert Goff

PHOTOGRAPHS BY ERIC MILLETTE

The approach to John Traina's Napa Valley hideaway on Highway 29 makes you a little sorry you're driving a car. Flanking the long drive to Traina's 1850 gingerbread house is a motley assortment of vehicles from an era of more leisurely transportation: buggies, work wagons, carriages, a surrey with, yes, a fringe atop it, even an old 1920s circus wagon with its lion cage intact. The driveway is an outdoor museum of California's roadway transportation from the 19th and early 20th centuries.

Traina, a former shipping company executive and cofounder of now-defunct Pearl Cruises, began collecting wagons in 1980, shortly after he bought the Napa house. "This place just looked like it needed one," he says. That spring Traina presented his then-wife, author Danielle Steele, with the fringe-topped black surrey as a Mother's Day gift. Made around the turn of the century, the model was popular with urban women because its rubber-coated tires offered a smoother ride than vehicles with plain steel or wood wheels. His wife's reaction? "You'll notice it's still here," remarks Traina.

Later Steel responded more warmly to her husband's wagon mania. At a 1990 auction in Los Angeles the couple ended up secretly buying each other wagons as gifts.

Traina is an obsessive collector of many things. He has just published a book on his collection of Fabergé cigarette cases. He also collects old American cars, miniature suits of armor and maritime memorabilia. With each of his collecting passions, he feels a certain itch after he buys the first item, and he knows he's hooked for life. So it was with wagons.

"When you collect, it's dangerous to buy any one thing," says Traina, who now owns 33 wagons. His acquisitions are rarely planned; last year, when he took his son to watch the San Francisco Giants train in Scottsdale, Ariz., he ended up buying four ranch wagons.

Traina's not the only wagon collector, mind you, but he doesn't often find himself outbid for a buggy. Which only means that wagons are still pretty affordable. A typical late-19th-century buggy in good condition goes for around $3,000 to $4,000 at a big auction house like Butterfield & Butterfield. Simpler farm wagons and carts often cost less at country auctions and estate sales. At the high end, the plush one-ton Concord Stage Coach is the Holy Grail of wagon collecting, described by Mark Twain as "a cradle on

John Traina's Napa Valley wagon collection (opposite) comprises more than two dozen buggies, coaches, surreys and work wagons. Highlights of the collection include (above, clockwise): a carriage (pictured with Traina), a circus wagon, a stagecoach, a work wagon, and a boxy State Dairy milk wagon which cost about $225 when it was built around the turn of the century. Today an old set of wheels in good condition can sell for as little as $3,000 to more than half a million.

wheels." Fewer than 4,000 Concord coaches were built between 1830 and 1900; only a handful survive in decent, unrestored condition.

Greg Martin, head of Butterfield & Butterfield's Arms & Armor division, and its de facto wagon expert, knew of a Concord that sold last year for about $100,000. Today he says it might bring as much as $500,000.

Traina's prize wagon is his Wells Fargo Express "Mud Wagon" U.S. mail coach, which he bought in 1986 when the contents of casino tycoon Bill Harrah's Pony Exp Museum were auctioned off. "This is the kind of thi probably should have bought more of," says Traina, paid $22,500 for the faded burgundy-and-gold coac might fetch more than $75,000 today.

"I've learned that certain things are quite valu now, but I don't expect to make money on collectir says Traina. "Mostly because I just don't like sel things."

NAPKIN NOTES

The art of charging $8 for a plate of lettuce.

Hail, Caesar

By Clark Wolf

Caesar salad is an industry, a benchmark, a cultural phenomenon. It's also a meal. When I reinstated it on a chophouse menu in Manhattan in 1988, it went for $7.50, cost 78 cents to make and sold thousands every month.

This is a true American success story, embodying a bushelful of trends on a single plate. It's been around longer and shows up on more menus than any other classic dish I can think of. You can now find it in a variety of permutations, some of which can get pretty ghastly, but it originated with a simple dose of Yankee ingenuity, not to mention a dose of desperation.

KENNETH CHEN

It was the 1920s. An Italian-American restaurateur named Caesar Cardini ran a Tijuana hot spot favored by Hollywood bigwigs and their glamorous gal pals. One fateful day the food truck failed to deliver. And the restaurant was booked solid.

Food pro that he was, Cardini went to work with whatever he could find around the kitchen: crunchy sweet romaine, the whole elegant inner leaves only; aged mellow Parmesan; a swipe of garlic; plenty of olive oil; and a raw egg to hold it all together and give it depth—and protein. Then a squeeze of lemon, a grind of pepper, a pinch of salt, a drop of Worcestershire with its hint of anchovy. (The whole anchovy came later; and don't let a snooty, misinformed waiter make you feel stupid if you don't want some skanky little dead fish laid to rest atop your salad.) Cardini put all the ingredients together in a wooden bowl with his customary flourish, and—as they say in French—voilà!

The classic Caesar salad has ranged pretty far afield since then. In northern California it's covered with Jack cheese. On the Gulf Coast toss in a few shrimp or crabs. England restaurants contrit everything from fried clams to a cheddar. And everywhere you even on room service lists in the hotels, the Caesar sports its ubi tous grilled chicken topper. week I even discovered a Thai Ca at a Manhattan restaurant called Red Garlic: no uniquely Asian in dients, just the classic base wi sautéed soft-shell crab. At $12, n bad deal at all.

The scariest version I've ever was in a very good little Mexi restaurant in San Diego, not far fi Caesar's original shrine. The sw family that ran it confused Wor tershire sauce with Marmite, a f nasty English yeast-based spread made the whole thing look a li bloody. And it was *still* tasty.

How to explain the phenome that is Caesar? Well, for one thi it is a complete and satisfying all on its own. But beyond t people love it because they perc it as fun, modern (especially w stuff on top) and yet still heal (especially when a placard on table notes that pasteurized eggs used). Somehow, it is conside American and Italian at the sa time, despite the fact that you c have it both ways.

Is there nothing sacred whe comes to rendering unto Cae This flexible purist, whose o objective is to avoid confusing dish with taco stuffing, propou six simple guidelines: hold the to toes; tear, don't chop the romai use plenty of real garlic; find a f range chicken egg you can consu without fear of salmonella; ad dash of mustard if you like; and other food from other plates.

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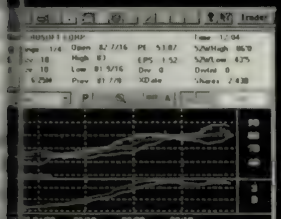

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Thoughts on the business of life

At lunch I heard a middle-aged man tell several friends, "You can't sit in your office the year round and expe orders to fly in." The truth is, according to my observation, that nearly all our most successful companies an employing sales forces are directed by acutely sales-conscious executives, who either go out frequently on t firing line or insist on their managers and assistants doing so. One of our most eminent manufacturers years established the rule that the head of its sales force and each of his assistants must make one trip annually a an ordinary salesman, digging up orders under exactly the same conditions. –B.C. FORBES (1939)

© EDWIN LANDSEER (1839-1873). DIGNITY AND IMPUDENCE. 1989. TATE GALLERY, LONDON. ART RESOURCE, N.Y.

A dog teaches a boy fidelity, perseverance, and to turn around three times before lying down.
ROBERT BENCHLEY

Dog. A kind of additional or subsidiary Deity designed to catch the overflow and surplus of the world's worship.
AMBROSE BIERCE

Dog does not eat dog.
JUVENAL

Before you beat the dog, learn the name of his master.
CHINESE PROVERB

In order to really enjoy a dog, one doesn't merely try to train him to be semihuman. The point of it is to open oneself to the possibility of becoming partly a dog.
EDWARD HOAGLAND

My dog can bark like a congressman, fetch like an aide, beg like a press secretary and play dead like a receptionist when the phone rings.
GERALD SOLOMON

You may drive a dog off the King's armchair, and it will climb into the preacher's pulpit; he views the world unmoved, unembarrassed, unabashed.
JEAN DE LA BRUYÈRE

If you are a dog and your owner suggests that you wear a sweater, suggest that he wear a tail.
FRAN LEBOWITZ

Any man who does not like dogs and want them about does not deserve to be in the White House.
CALVIN COOLIDGE

We are alone, absolutely alone on this chance planet: and, amid all the forms of life that surround us, not one, excepting the dog, has made an alliance with us.
MAURICE MAETERLINCK

I always disliked dogs, those protectors of cowards who lack the courage to fight an assailant themselves.
AUGUST STRINDBERG

Dogs have more love than integrity. They've been true to us, yes, but they haven't been true to themselves.
CLARENCE DAY

There is no faith which has never yet been broken, except that of a truly faithful dog.
KONRAD LORENZ

A real dog, beloved and therefore pampered by his mistress, is a lamentable spectacle. He suffers from fatty degeneration of his moral being.
AGNES REPPLIER

A dog will never forget the crumb thou gavest him, though thou mayst afterwards throw a hundred stones at his head.
SA'DI

In dog years I'm dea
ANONYMOUS

A Text . . .

Know ye that the Lord he is God it is he that hath made us, and not we ourselves; we are his people, and the sheep of his pasture.
–PSALMS 100:3

Sent in by Ramona L. Simpson, Cupertino, Calif. What's your favorite text? *Forbes Book of Quotations: Thoughts on the Business of Life* is given to senders of Bible texts used.

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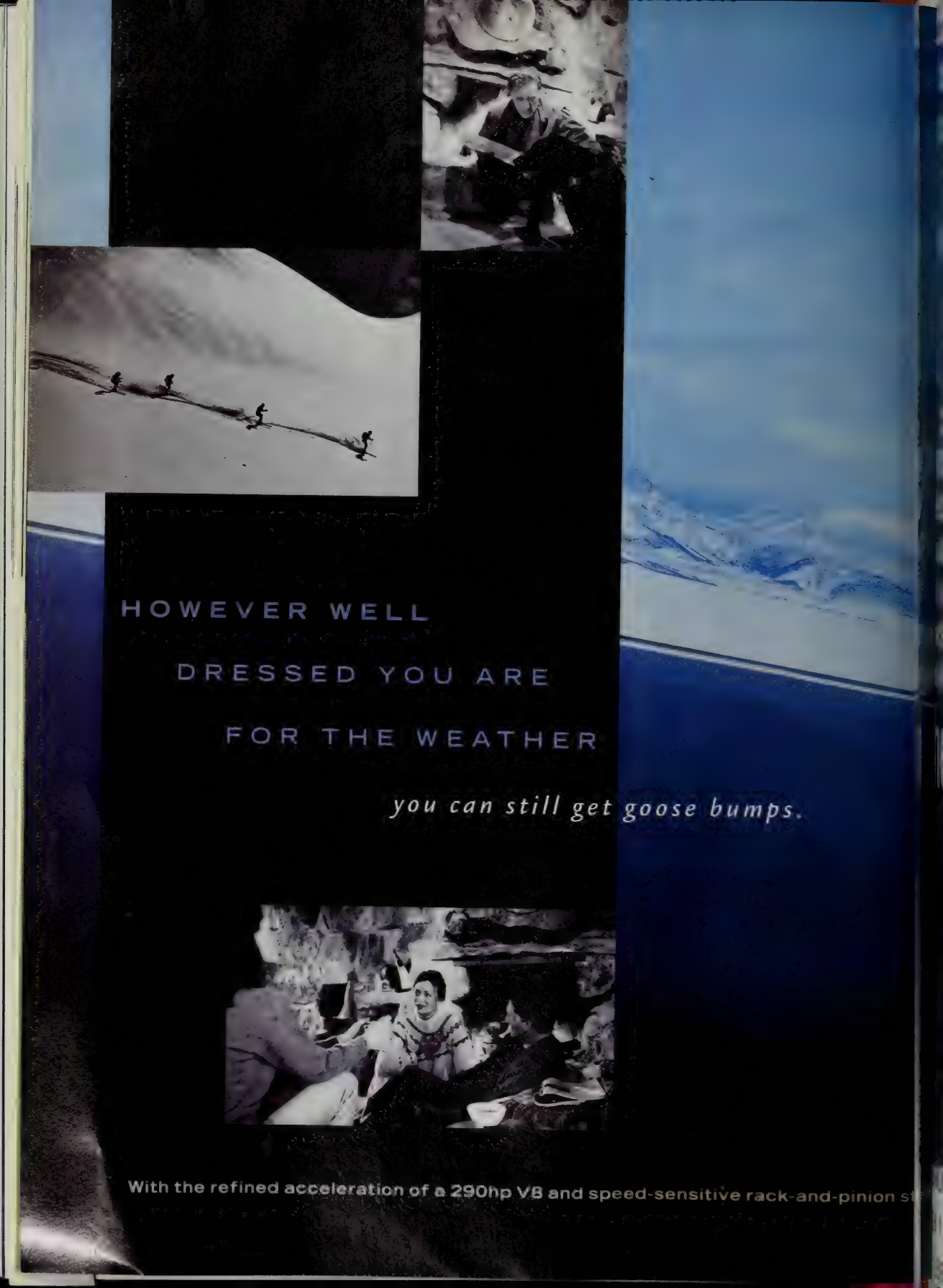
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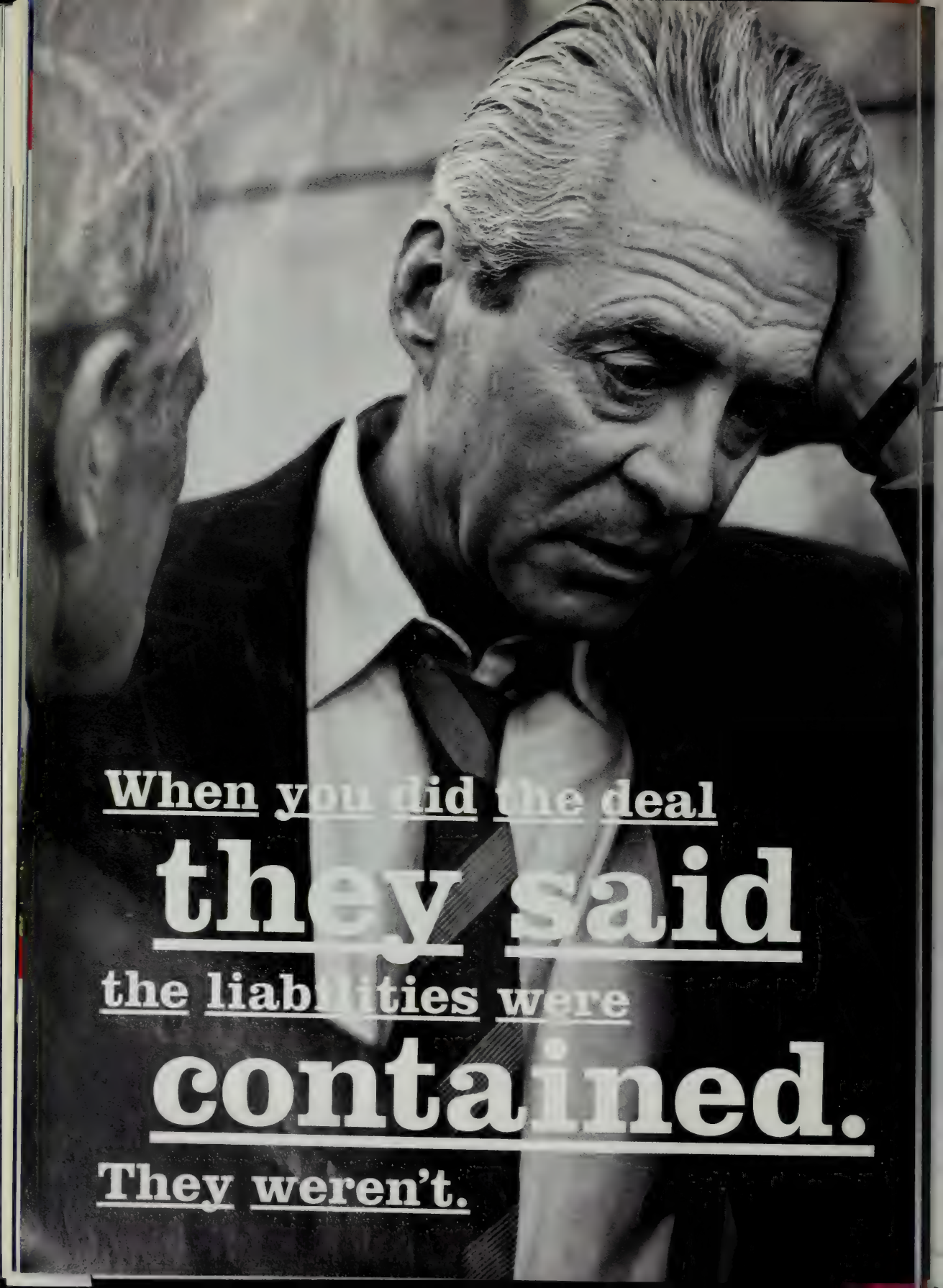
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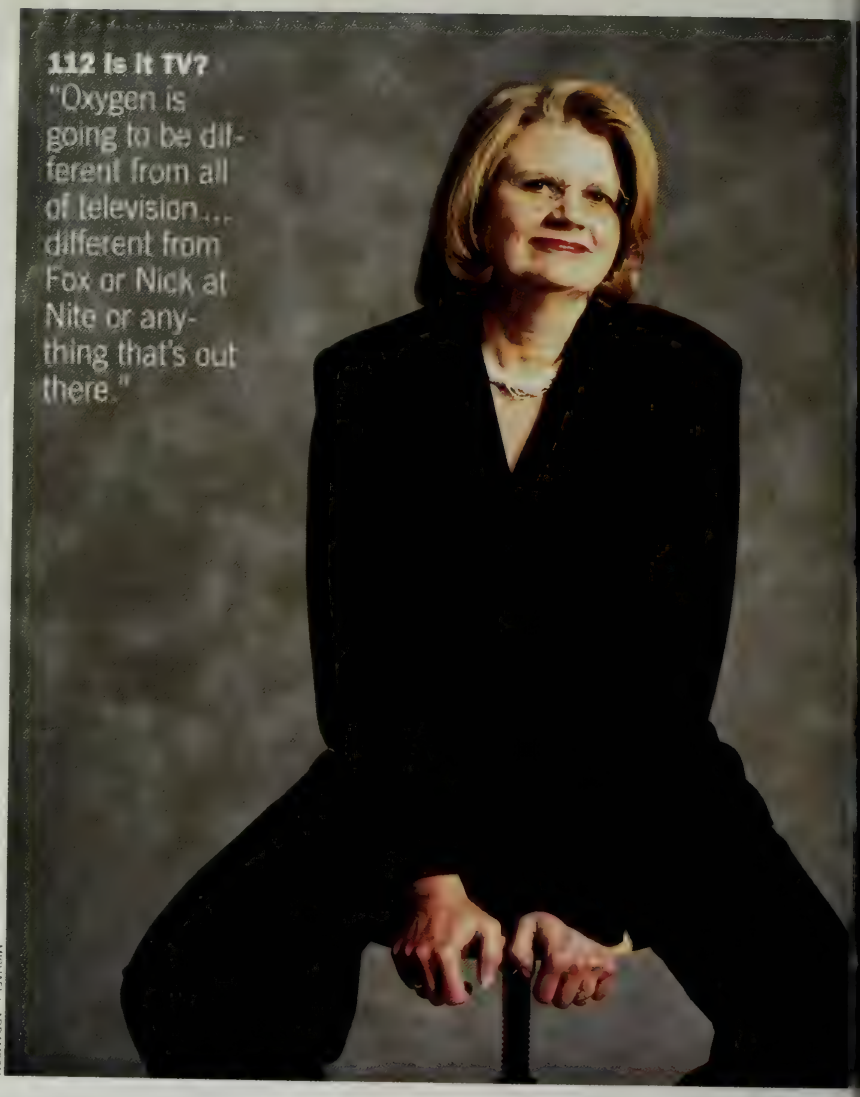

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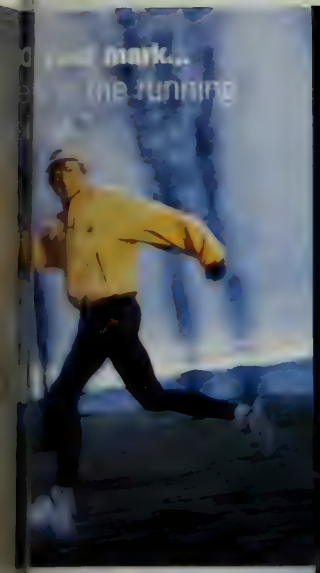

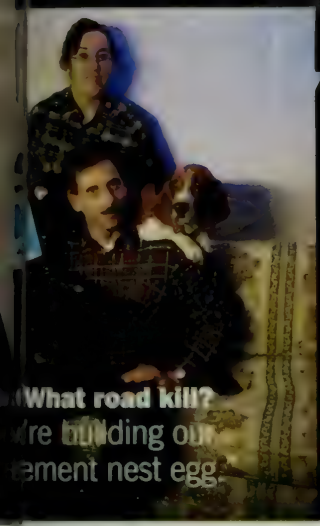

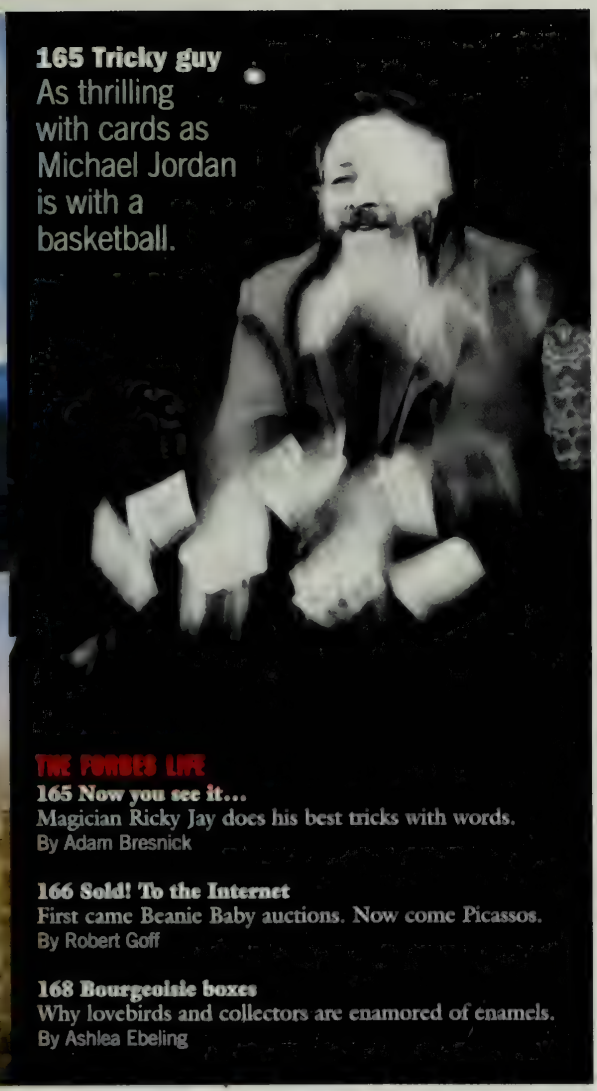

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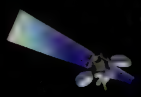

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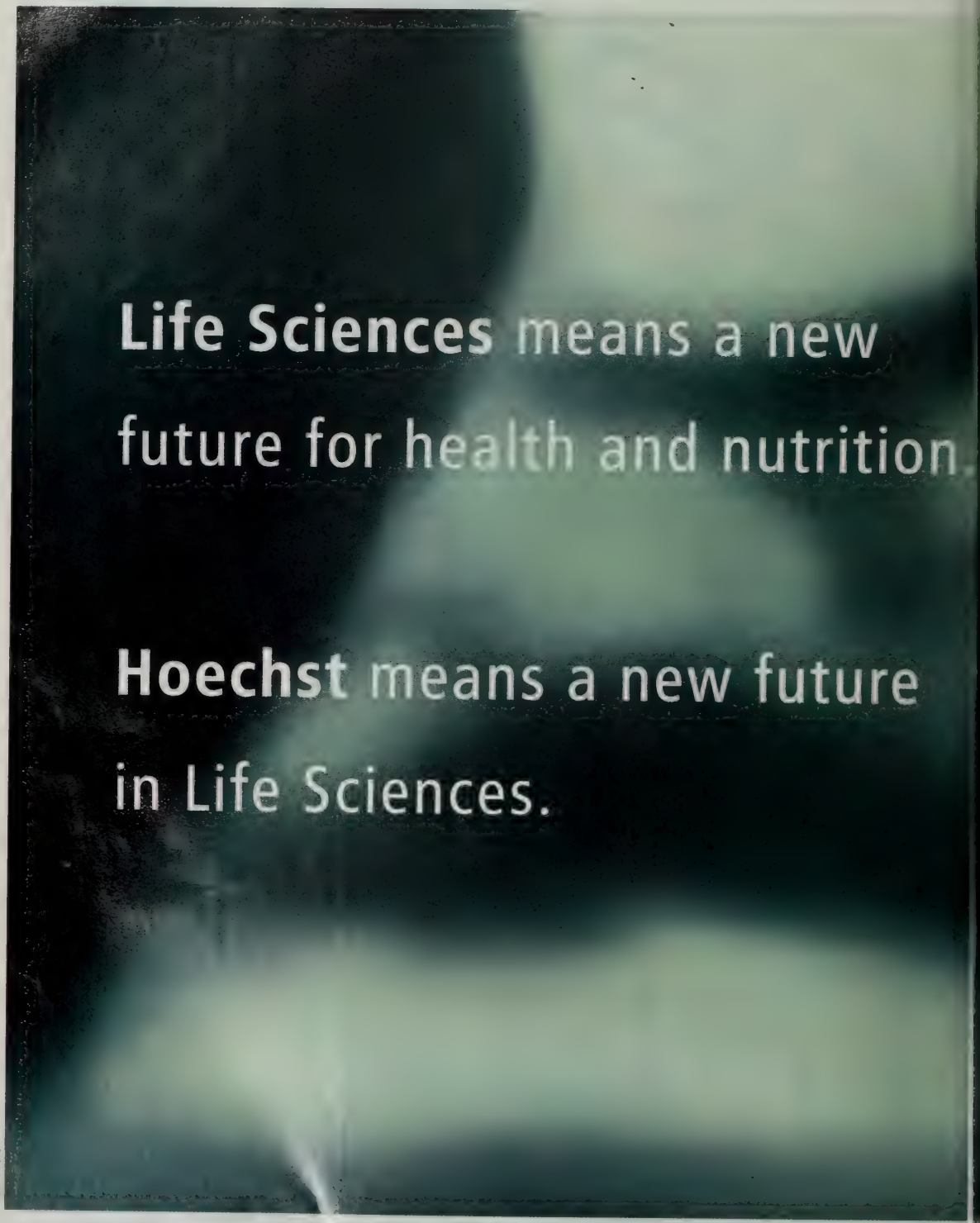

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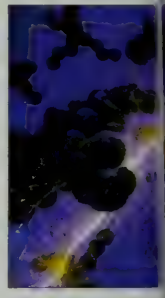
Laura Saunders and Ja[net] Novack, Forbes' resident tax experts, are disgusted by the In[ter]nal Revenue Code. But they make their living from it. They exp[lain] to our overtaxed readers how to cope with the all the goofy [new] provisions.

If you have children or grandchildren who will attend colle[ge] and if you expect to leave an estate of $1 million to $4 million, [you] should read Novack's "The tuition estate trick" on page 142.

Soot, sand and mud

In our economy the glory, honor and fees go to investment bankers. But who's out there stoking the boilers and shoveling the dirt? People like Samuel Bodman.

Bodman spent many years as a financier. But then he returned to his first career, in chemistry. As chief executive of Cabot Corp., he engineers new technologies for the most basic of basic industries: carbon black, silica, drilling mud. Read about him on page 63 in Bernard Condon's "The soot king," and you may conclude that the economy would be better off if we had fewer investment bankers and more chemists.



Microscopic ima[ge] of carbon black

The Yahoo enigma

I've given up trying to understand why Amazon is worth $17 b[il]lion and Yahoo twice that. Now I'm trying to understand why th[eir] managers don't take advantage of the situation. Shouldn't they [be] selling stock?

They could maybe raise a few billion in a second stock offerin[g]. Equivalently, they could use their high-priced shares to acqu[ire] some real assets, instead of just using them to acquire other a[n] Internet stocks (or, in Amazon's case, to back up a convertib[le] bond issue). If you have a theory why there aren't more stock sal[es] post it to the editor's forum on the Forbes Digital To[ol] www.forbes.com/sidelines. Also there: an answer to my questi[on] last issue, about the demise of the Pickett slide rule company.

William Baldwin

Editor

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Follow through

Edited by Susan Adams

R. LUNDQUIST-AP WIDE WORLD

Ford's Nasser and Volvo's Johansson
Shaking on their Swedish-American tie.

Driven to a deal

LAST YEAR we predicted that Volvo would buck the auto world's recent merger trend and remain independent *(Aug. 10, 1998)*.

Not quite. After an agreement to sell its car division to Ford Motor in late January, Volvo Group is still on its own, though at $13 billion in expected 1999 sales, only half its previous size. Volvo retains its generally more profitable truck and bus business.

Ford has said it will keep its hands off the Swedish automaker. But look for it to bankroll new models that will be popular with Americans. Among them: sports utility vehicles and minivans.

–KATHERINE BRUCE

Currency chaos

READERS WHO SAW columnist Steve H. Hanke's attacks on pegged exchange rates in Brazil *(Oct. 20, 1997)* and Russia *(Mar. 9, 1998)* will not be surprised by current events.

More than a year ago Hanke explained that Brazil's Plano Real, which pegged its currency to the dollar, dangerously quashed free market forces by giving the central bank the power to set both the exchange rate and monetary policies. Hanke predicted correctly that Brazil's then-president Fernando Henrique Cardoso would defend the real's peg through the 1998 elections, after which all bets were off. On Jan. 15 Brazil let its currency float. Since then the real has collapsed from 1.2 to the dollar to a recent 1.9.

In his Russia story ten months ago, Hanke forecast Russia's ruble blowup. One of the chief culprits: Russia's crawl-

FLASHBACKS

Sixty years ago in For

March 1,

"When we got into 1931," Howard H
head of the famous "57 Varie
explained, "it was evident that
depression had developed. . . . I decided
instead of pulling in our horns, we must
out our horns farther and more vigorou
Heinz gave instructions to his key men
the sales force would be enlarged and
advertising would be used on a greater
than ever before. "In 1933 we actually
more business] than in the boom ye
1929," [Heinz no

*Between 1929 and 1936 Heinz expande
work force by 40%, to 15,500 emplo
Today it employs 40,*

Fifteen years ago in For

February 13, 1

Joe Wilson of Merrill Lynch figured out a
easy way to turn interest-bearing Trea
bonds into a series of separate zero-cou
bonds, each with its own maturity. M
buys regular Treasurys and deposits them
bank. It then sells separate receipts [Wils
Treasury Investment Growth Receipts] aga
each future interest and principal paym
A neat trick of packaging. The new secur
first roared when Wilson bought $500 mi
in Treasurys and quickly repackaged t
into a $2.5 billion [total maturity value] i
of TIGRs. This is a highly profitable busin
because the firm effectively buys Treas
wholesale and sells TIGRs re

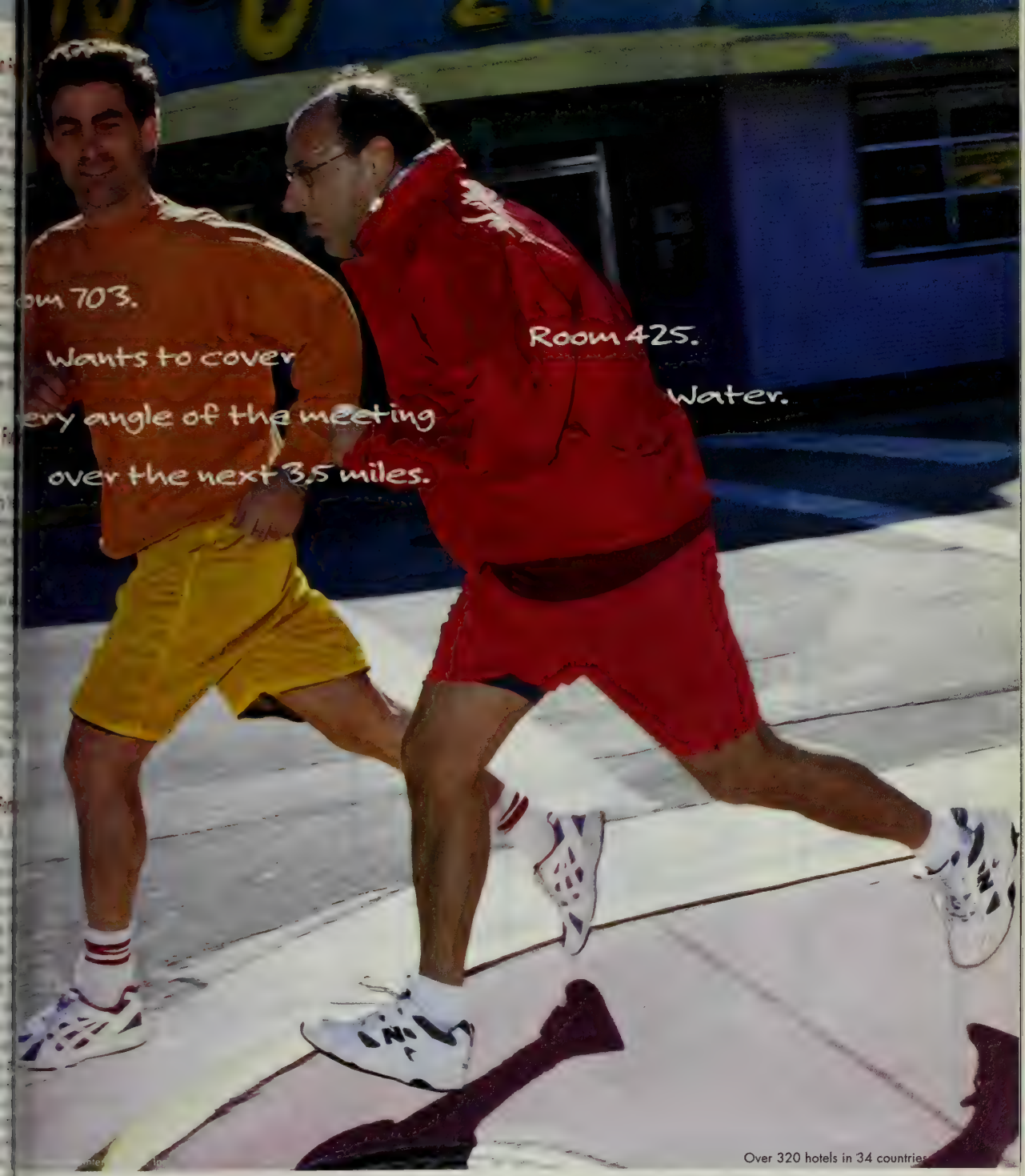
Ten years ago in Forb

February 6, 1

A dangerous and unpleasant by-proc
of glasnost and perestroika seems to l
resurgence of [the] chauvinistic, reactio
Russian nationalism of the Slavophile m
ment [which erupted in] the 18
during the harsh reign of Nicholas I.
Slavophiles believed their society coul
rescued only by a spiritual rebirth. T
late-20th-century heirs hold similar beli
Unbelievable as it may sound, man
today's Russian nationalists are nostalgic
the monarchy as a symbol of Russian gr
ness. But at its extreme, the movemer
fascist. A faction is turning the residue c
feeling and xenophobia into a racist platfo
Pamyat (Memory). They blame Bolshev
for the destruction of traditional values.
who is to blame for Bolshevism? The Jew
in conjuction with the Masons. This is w
is rearing its ugly head in the dying day
Soviet communi

*There are indications that the KGB finan
Pamyat. The movement is insignificant r
but fascism and anti-Semitism are again
the rise in Rus*

–Edited by Dolores Latani



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ing peg system. Indeed, on Aug. 7 the Russian government was force float the ruble. From 6.2 to the do it's languishing at about 22.

The only solution: install curre boards or officially dollarize th chaotic economies. –

Phone Bill

SEVEN MONTHS AGO *(July 27, 19* we noted that NTL, a U.K. cable telephone company, was ahead the pack in its ability to bundle t phone, cable and Internet servi together and sell them over its o sophisticated network—somethi giants like AT&T still hope to Apparently Microsoft also had its on NTL. In January it announce $500 million investment in the billion (revenues) outfit for a pot tial 5% stake.

The deal gives Microsoft a piece the action in Europe's telecom m ket, while NTL gets access Microsoft's software expertis Investors love the idea: The day t deal was announced, NTL's stc jumped 18% to close at $79.75.

–KATHERINE BRU

Promise keeper

WHEN WE LAST WROTE about compu er consultant Computer Scienc Corp., Chief Executive Van Honeycu was making some mighty promises his shareholders *(May 18, 199* Having fought off a $54 per sha takeover offer from Computer Asso ates, Honeycutt vowed he'd increa earnings so much that CSC's stoc then around $41, would hit new hig on its own. We were skeptical.

We should have had more faith. Tl stock now trades at $64. And earnin for the nine months ended Jan. jumped 24%, to $224 million on sal of $5.5 billion—higher than Hone cutt's promise of 18%. Since our sto CSC, based in El Segundo, Calif., h landed 34 new contracts, including $3 billion, 15-year deal with the IRS.

CSC reaps 70% of its revenues fro lower-margin federal contracts and making a stronger push into the pr vate sector. Honeycutt landed a $30 million AT&T contract in late Januar

–BRETT NELSON ■

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You are what you sell

By Josephine Lee

ILLUSTRATIONS BY JAMES YANG

An often-expressed theory about salesmanship: You've got to put yourself in your customers' shoes. Use your own product. Helen Rockey does *(see p. 96)*; she runs Brooks Sports, and she runs in Brooks sneakers. Not all executives agree with this principle.

"I could never get the same satisfaction from making dresses that I get from steel latches."

Judith Kucway, chief executive, Motor City Stamping

John Spottiswood
Chief Executive Officer
Match.Com (dating service)
San Francisco, Calif.
I have been married for two years, and we just had a baby, so in my personal life I am focused on very different things than what single people care about.

To stay active in the dating community, I put my profile on various sites to find mates for tennis or cooking. The other day I met a woman on-line who told me that users on dating sites should have the ability to block e-mails from other members if they don't like them. I wouldn't know that because women don't send me e-mails that I don't like.

So even though many people on these sites are not interested in communicating with me once they find out that I am married and president of another dating service, I will continue logging on for research.

Judith Kucway
Chief Executive Officer
Motor City Stamping
Chesterfield, Mich.
I was born and raised in Detroit, and we live and breathe cars here. I could never get the same satisfaction from making dresses that I get from making steel latches and brackets fo GM trucks.

Mo Siegel
Founder and Chairman
Celestial Seasonings
Boulder, Colo.
Unless you've got a near-perfect IQ and can solve every business problem unemotionally, passion about your product really helps.

I got into herbal supplements because I believed in the health benefits of our product line. I want everybody in the company to be passionate about a healthy lifestyle. So when I was interviewing Stephen Hughes for a chief

he next decade 800 million people will be coming
he world's cities in search of a better life.

Imagine what happens
when they trade
their bicycles for cars.

We're making the products that cities will need to handle all kinds of pollution in the future — now.

Fuel cells that have powered space missions for 30 years now generate electricity for hospitals, offices
d apartments.

They're also part of the new hybrid engines that will power tomorrow's cleaner running cars.

And that's just for starters.

We make the broadest line of chlorine-free air conditioners in the world. People movers that squeeze
ergy and reduce traffic. Aircraft engines that save fuel and reduce noise.

Because, right now, the environment is where the need is.

In the future, it's where the money is.

Be there first.

United Technologies

is Carrier Pratt & Whitney Sikorsky Hamilton Standard UT Automotive

exec, I made sure that he cared about herbs and supplements. And then I also made sure that he cared about a healthy lifestyle in general. I drudged him across the mountains hiking. He did a great job keeping up, so I hired him.

Russell Klein
Chief Executive Officer
Easton International (hosiery distributor)
New York, N.Y.
There is one common factor to every product, be it an automobile or legwear: It's sexuality. As a man, I can bring out that sexuality in panty hose, because I can see how the opposite sex would evaluate particular panty hose on a woman's legs.

Jenny Craig
Founder
Jenny Craig Inc. (weight-loss centers)
La Jolla, Calif.
It's important that I am a woman because 85% of our customers are women. And just like them I have had weight problems in the past, and I kept my weight down thanks to our program.

I think you have to be a role model for your products—not just for your potential clients but also for your staff. Some of my competitors were overweight and their companies are now out of business.

"There is one common factor to every product, be it an automobile or legwear: It's sexuality."

Russell Klein, chief executive, Easton International

Ned Roscoe
Cofounder
Premium Tobacco Stores Inc. (tobacco discounter)
Benicia, Calif.
We don't have to smoke to run this business. It's not like Starbucks, where you have to have a spiritual relationship with a bean because your customers are paying a heck of a lot of money for a cup of coffee. We're a discount retailer; we run on tight margins so we can't afford—and don't need—a spiritual story.

Lee Hillman
Chief Executive Officer
Bally Total Fitness
Chicago, Ill.
I am not an exercise fanatic. I have a reasonable, medical approach—I exercise for about an hour every day, and it has helped me beat my asthma.

We are not a cult. We don't want to make exercising into a religion. It shouldn't be an emotional thing. We base our marketing on medical reports that show the benefits of exercise.

Rudy Slucker
Chief Executive Officer
TearDrop (golf clubs)
Union, N.J.
When I sold my hardware business in 1990 I decided to retire and take up golf. A friend of mine who had a putter company was financially strapped, so in 1996 I bought the company from him hoping that owning it would help me develop my new passion.

Little did I know that owning a golf company is the best way to ruin your golf game. My role is to modernize operations while others deal with the game.

Paul Charron
Chief Executive Officer
Liz Claiborne Inc.
New York, N.Y.
I don't need to know whether the skirts are going to go up or down, whether they are going to be full or fitted. The contemporary chief executive doesn't need to be intimate with the product, only with the consumer.

I meet with my consumers and read research about them. I constantly meet with the suppliers. I am intimately connected with all steps of the production chains. I drive the process of how information about the consumer gets to the designers, but not the design itself.

I bring to Liz Claiborne the leadership skills that I refined as a naval officer in the Vietnam War and the strategic process that I got from Procter & Gamble, where I spent ten years in the packaged goods division. I would be employing many of the same skills if I were in the film business or telecommunications.

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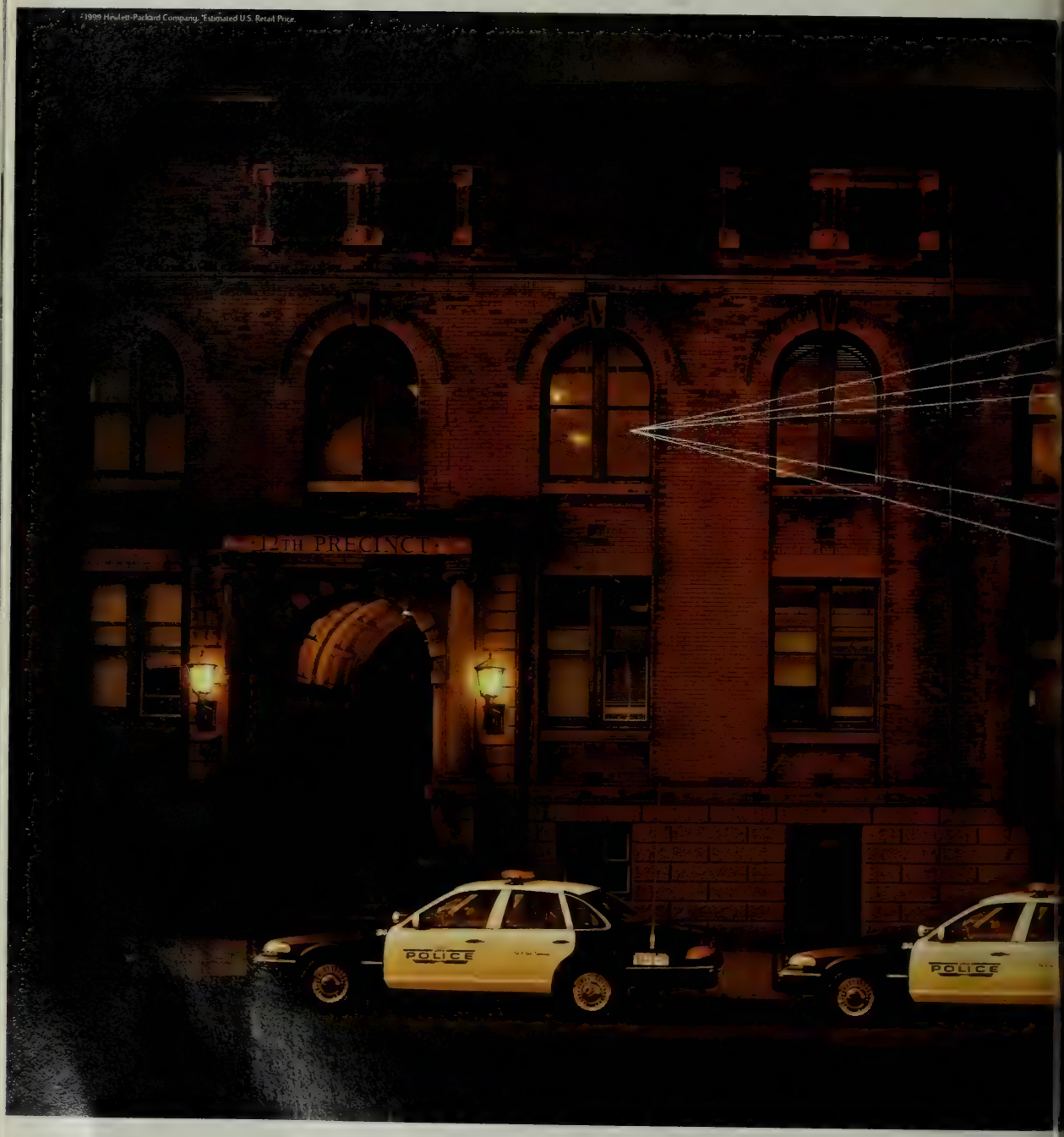

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ffice printers, the HP 2500C and 2000C. Both offer a redesigned cartridge system that uses four different ink artridges. Result? Full-page graphics print at.4ppm. Operating costs drop sharply. And to ensure brilliant color, oth printers feature our exclusive PhotoREt Color Layering technology. Visit www.hp.com/go/officecolor.

readers@forbes.com

Thrifty, not cheap

A cost-cutting mind-set is too conventional to account for Vanguard's success ("The Gospel according to Vanguard," *Feb. 8, p. 115*). Have you used their Web site? There's nothing frugal about it—it's a shrewd, high-return investment in leading-edge customer service. You don't get results like that if you make your employees beg you for every penny. Vanguard is surely committed to prudent spending, but not at the expense of squashing investments in the future.
–Marcy Wintrub
Franklin, Mass.

MICHAEL J.N. BOWLES

Vanguard's Bogle and Brennan
A passion for parsimony.

Seat belts for cybertraders

You put a welcome spotlight on some of the excesses of Internet daytraders ("Amateur hour on Wall Street," *Jan. 25, p. 82*). One clarification: Merrill Lynch does not as a matter of practice urge clients to cancel orders for high-flying initial public offerings of Internet stocks. We have occasionally cautioned clients placing market orders in these issues, often suggesting limit orders instead. This benefits both sides of the transaction: Investors get a stock only at a price with which they're comfortable, and the issuing company gets satisfied investors.
–John L. Steffens
Vice Chairman
Merrill Lynch & Co., Inc.
New York, N.Y.

You've unfairly impugned cyber-investors as amateurs. Are all broker-bound investors professionals? And as for Merrill Lynch, not yet at the cybergate, advising their clients of the dangers lurking on-line: Did somebody say "buggy whips?"
–DuLaurence Miller
St. Petersburg, Fla.

Sliding-scale justice

You report that the Maddox family was awarded $15,000 for costs incurred from the IRS' unreasonable behavior, and that such awards can be made to people with a net worth of less than $2 million ("What statute of limitations?" *Feb. 8, p. 52*). Why are IRS offenses just and reasonable for taxpayers worth $2.1 million?
–Joseph F. Spaltro
Placitas, N.M.

Startup chicanery

Let's see if I've got this straight: "Resourceful" and "big talk" are euphemisms for "lying" ("Bootstrap," *Jan. 25, p. 72*). And lying is an appropriate way to "convince the skeptics." And that's what allowed Stacey Lawson and John Major to sell their moneylosing company for $45 million. Great country, this America.
–Jeffrey Chamberlain
Albany, N.Y.

Pulp nonfiction

Three more reasons electronic books will never completely replace paper books ("Gutenberg need not worry—yet," *Feb. 8, p. 106*):
1. You don't have to turn off a traditional book when a plane is taking off or landing.
2. You don't have to worry about getting sand in a paper book during a day at the beach.
3. Coffee tables just wouldn't look the same laden with electronic gadgetry and computer disks.
–Stephen V. Gilmore
Charlotte, N.C.

Book cooking

Why do so many people want to revamp accounting rules so a company's book value will track more closely with its market value, or that its P/E ratio will decrease ("Gaps in GAAP," *Jan. 25, p. 76*)? Any financial analyst or investor worth his salt will always dig behind the numbers no matter what changes are made to GAAP. And every time a change is made, companies will find ways to manipulate their financial statements. Look at the federal tax code: When it comes to rulemaking, more is less.
–Paul A. Broni
Rockville, Md.

Credit due

Your story on Manpower's Mitchell Fromstein ("Time to go?" *Jan. 11, p. 83*) gives the impression that Fromstein was responsible for the company's early growth. Not true. It was Aaron Scheinfeld who first thought of providing temporary stevedores to shipping companies and moved into the clerical field in 1948. Under his leadership Manpower expanded from a Milwaukee storefront to hundreds of offices worldwide. Without my grandfather's vision, there would have been no Manpower at all.
–John Scheinfeld
Los Angeles, Calif.

Fertilizing minds

Not everybody has the opportunity to donate $48 million to a charity, but all of us can take a lesson from Horace Hagedorn ("Putting Miracle-Gro on kids," *Feb. 8, p. 70*). If more private citizens and charities could give inner-city children the opportunity to go to college, there could be a real opportunity for changes in our society.
–Margaret M. Windrem
Raritan, N.J.

Horace Hagedorn
Hands-on charity that works

Letters should include the author address and phone number.

PREDATOR

How to avoid being the prey.

u're being followed. Even after you turn, he's close behind. You're frightened. What do you do? Don't go home. You don't want to lead him to your loved ones. Instead, drive to a well-lighted place where there are lots of people. A store, service station, hospital or police station. Once there, make a scene. Lean on the horn; flash your lights. Draw attention. For more information about what to when you're driving by yourself, get Alone Behind the Wheel, free from Shell. Pick one up a station, visit us on the web at www.countonshell.com, or call 1-800-376-0200.

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"ith all thy getting get understanding"

Fact and Comment

By Steve Forbes, *Editor-in-Chief*

COMMISSAR CLINTON?

HE PRESIDENT proposes that the feds invest Social Security rpluses in stocks, pumping in hundreds of billions of dollars over the next 15 years. The Berlin Wall may have fallen, e Soviet Union may have collapsed and China may welome private foreign money, but the U.S. government now lants to seminationalize American corporations. Not since e Clintons' attempt to take over merican health care has there been ich a Beltway power grab as this.

Do we really want the White House utting its hands on America's most tractive companies?

The Administration's promise that he federal investment committee ould be "independent" and "nonolitical" is laughable, especially oming from the crowd that got its itts on 900 allegedly confidential FBI les of prominent Republicans and hat sicced the supposedly independent RS on conservative organizations. Money from Washon never comes without strings attached. Years ago, the overnment piously promised that federal aid to education ould entail no regulations or intrusions. The rule books here are now voluminous. Yes, and the check is in the mail.

State and municipal pension funds often let politics intrude on investment decisions—one reason the performance of these pools often lags those of the private sector.

One can hear the chorus now: Don't invest in companies that invest in oppressive countries; that are involved in tobacco, liquor, any sort of alleged pollution or animal testing; that lay people off; that make guns; that sell junk food; or that sponsor TV shows that are too violent or risqué, etc.

UPI

No-nonsense response: Fed boss Alan Greenspan swiftly censored socialist scheme.

There will be corruption—mostly covert or de facto. What corporate executive would criticize a government that owns a large block of company stock? There will be patterns of the federal government's owning disproportionate pieces of companies headed by big-donation-making CEOs. There will be pressure to bail out losers to recoup bad investments or to "preserve" jobs.

Washington as venture capitalist? Political pull will count more than shrewd appraisal of prospects. Our economy will become as nimble and innovative as those of Western Europe.

Far better to phase in a new system, where younger people would *own* their own Social Security retirement accounts. This kind of people power is infinitely more democratic than Clinton's Soviet-style approach.

SUCCORING SAVINGS

ROTH IRAs, conceived by Senator William Roth (R–Del.), re a great conceptual breakthrough: You invest aftertax money in your account and pay no tax when you withdraw t after retirement. This innovation delivers on what Social Security once promised. Today your pay is taxed for Social Security, *and* you pay income tax on that payroll tax. Yet millions pay tax again on their Social Security income. Roth's concept is incentively sound; alas, Congress and the White House imposed income restrictions. If you make above a certain amount, you can't participate in this IRA.

Now the sagacious Senator wants to remove income caps and increase contribution limits on all IRAs from $2,000 to $5,000. Nearly 13 years ago Congress slapped on income caps for contributions to IRAs. Roth recognizes that this hurts the creation of capital. In addition he is proposing Roth 401(k) and 403(b) plans that would allow individuals to kick in aftertax money to those accounts and collect that money tax-free when they retire.

BRAD MARKEL/ GAMMA LIAISON

William Roth: Premier proponent of pension power to the people.

The Senator would even help boost family values by giving parents who have taken time off from work to raise kids the choice of making "catch-up" contributions to their retirement plans when they return to the work force: Returnees (or anyone else, for that

matter) could at age 50 contribute up to $7,500 annually to an IRA, instead of the proposed $5,000.

The Senator will have other liberalizations in his bill to encourage people to put more aside for their retirement.

Naturally the White House, while giving lip service to capital creation, will try to torpedo Roth's new liberali tion bill. Congress should pass the legislation anyway a dare President Clinton to veto it. The President, w often backs down in the face of determination, might w sign it into law.

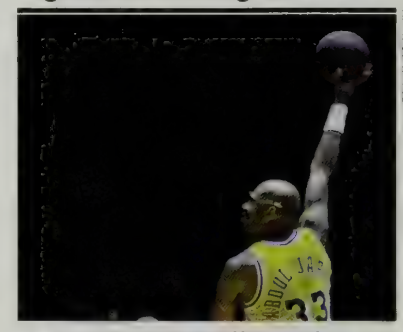
ENSURING HONEST ELECTIONS

YOU NEED A PHOTO ID to board an airplane. Young people must have a similar ID to buy cigarettes or liquor. Yet in most states, you need no identification at all to register to vote or to prove you are who you say you are when you vote on Election Day. This laxness has been an invitation for voter fraud in a growing number of areas around the country. While the U.S. often sends observers to Bosnia, Haiti, Cambodia and elsewhere to make sure there is voter fraud in elections, our own Justice Department lo resisted the idea of requiring voters to provide proof identity for registering or voting, claiming it would c courage minority voting. (Recently Justice has backed o

All states should require all of us to display IDs. P serving the integrity of elections should be fundament

QUALITY VS. QUANTITY

IN THE AFTERMATH of the basketball players lockout, Hall of Famer Kareem Abdul-Jabbar has come up with a great idea: Shorten the season. Professional teams now play 82 games in the regular season and perhaps a score or more in the playoffs. Years ago the regular season was only 62 games, and the playoffs would be over in April. Now the end comes only a couple of weeks away from July 4th. This basketball great, in a *New York Times* Op-Ed piece, has made the case for why less is more:



AP/WIDE WORLD

Kareem Abdul-Jabbar: Hoopster hero makes scoring proposal.

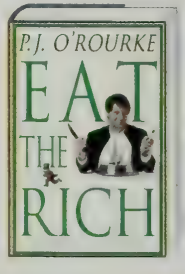
■ **Better games.** Adrenaline runs hig est in the playoffs. A shorter regu season would make each game cou more and improve the quality of pla

■ **Fewer long-term injuries.** Bask ball is murder on the ankles, kne and back.

■ **Better team play.** Many players a self-taught because they often do get the coaching and teaching th used to be given in elementary a high schools. A shorter season wou give NBA teams more time for trai ing and practice.

APPETIZING TREATISE

Eat the Rich—by P.J. O'Rourke, (Atlantic Monthly Press, $24). Adam Smith-like perceptiveness combined with a wicked wit makes for delightful, insightful reading. O'Rourke asks the age-old question: "Why do some places prosper and thrive while others just suck?" He ultimately concludes, "I ended up looking at the free market as a moral device," noting that the Constitution is a free-market document, "though the electors and the elected sometimes forget it." The author takes us to various places around the world to prove his point: Wall Street, Albania, Sweden, Cuba, Russia, Tanzania, Hong Kong and Shanghai.



Plopped in the middle of these very funny but shrewd travelogues is a chapter subtitled, "Taking Econ 101 for Kicks," that should forever bury the pompous pretensions of a lot of what pass for economics. O'Rourke's explanation of "Ricardo's La of Comparative Advantage"—using the thrillers of Joh Grisham and songs ("noise") of Courtney Love—is a cla sic. His Ten Less-Basic Principles of Economics should sa countless students the agony of taking number and-graph-laden economics courses. O'Rourk understands that economics is people, not mat ematical equations. "Reading about economi after watching a lot of economic activity is lik reading the assembly instructions after th Christmas toy has been put together. Certai significant patterns begin to take shape in th mind—even though the instructions are sti gobbledygook and the toy doesn't work." Th book lets you laugh and learn at the same tim

RESTAURANTS—GO, CONSIDER, STOP

Here is the distilled wisdom of brothers Bob, Kip and Tim, and other FORBES *eatery experts Tom Jones and Patrick Cooke.*

● **March**—405 East 58th St. (Tel.: 754-6272). Better than ever. Signature beggar's purse (tiny crêpes filled with caviar and lobster, tied with a shallot string) are aptly named, as your purse will indeed be beggared by the dish. Stick with the prix fixe and you'll come out of here happy and solvent.

● **Cité**—120 West 51st St. (Tel.: 956-7100). Fine steakhouse fare: prime sirloin, rack of lamb, spit-roasted chicken, grilled tuna. Particularly popular is the "taste of the grape" prix fixe dinner after 8:00, with all the wine you can drink.

● **Monkey Bar**—Hotel Elysée, 60 East 54th St. (Tel 838-2600). Stylish setting, attentive service and wonderfi food. Best bets: roasted beet and frisée salad with hazelnu vinaigrette; wild mushroom stew and Château Chalon sauc black sea bass with glazed onions and black truffle sauce.

● **Palio**—151 West 51st St. (Tel.: 245-4850). Warr decor, sotto voce atmosphere, helpful and cheerful ser vice. Often overlooked, but, quite simply, this is one c the finest Italian restaurants in the city. ■

How to Make Smarter Mutual Fund Choices in 1999

Prudential core funds

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Prudential Diversified Bond

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Global Total Return

Prudential core funds are just the beginning. We offer over 50 mutual funds to meet all your investment needs.

It's that time of year when many investors consider adjusting their mutual fund portfolios. If you're thinking about making some changes, remember: In this bull market, almost any fund family can boast about recent returns. But, bull markets don't last forever. That's why Prudential offers this checklist of other important qualities to look for.

☑ **Choose an experienced fund manager.** Has the fund manager shown stock-picking skills in anything other than today's bull market? *The Wall Street Journal* reports that the average age of today's portfolio manager is just 29. You'll probably feel more at ease with money managers who are experienced in both bull and bear markets.

☑ **Seek a responsible balance of risk and reward.** Don't expose your portfolio to risk you don't want. Make sure that your mutual funds don't achieve their returns by taking on more downside risk than you're comfortable with.

☑ **Look for a disciplined investment style.** Check to see whether a fund sticks to its stated objectives. Funds that pursue performance at the expense of consistency can blur your asset allocation and your overall investment strategy.

☑ **Demand consistent long-term performance.** Investors rarely buy a mutual fund for short time periods, so examine the returns that a fund has delivered—not just recently—but over the last five or ten years. A fund with a proven track record can give you the confidence that your fund is managed with an eye for long-term results. Of course, past performance is no guarantee of future results.

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Other Comments

Press Pass

REPORTER: "Can you name one President that has told more lies?"

Joe Lockhart, White House spokesman: "I don't think I'm going to take that question."

–White House press conference

Dangerous Game

IT'S A GOOD THING junk science is only a relatively recent phenomenon. In American Lawyerland, pseudoscience would have deemed microwave ovens, TVs or medical X-rays dangerous cancer risks from which only the legal industry could save us.

Junk science players win by convincing us that our nation is in peril from its scientific progress. But victims of the deadly *E. coli* bacteria didn't win when meat irradiation approval was delayed.

–DANIEL J. POPEO, chairman, Washington Legal Foundation

Destined to Flop

BY INVESTING $700 billion of the Social Security trust fund's reserves in the stock market, President Clinton hopes to keep the fund solvent into the next century. Alas, the way he wants to do it almost insures failure.

Public portfolio managers can invest in socially desirable projects that may not meet the economic criteria a private investor would demand. [In 1990] Connecticut's state employee pension plan invested $25 million in the troubled Colt Firearms to keep 925 local jobs from being lost.

Maureen M. Baronian, a stockbroker and a former state representative, sat on the advisory board overseeing Connecticut's investments when it bought into Colt. Ms. Baronian and three other board members voted against the investment, but politics triumphed. "Political considerations are always there," she said. Colt filed for bankruptcy in 1992, and Connecticut's employees lost their investment.

–GRETCHEN MORGENSON, *New York Times*

I would rather be right than be President.

–HENRY CLAY, speech in the U.S. Senate, 1850

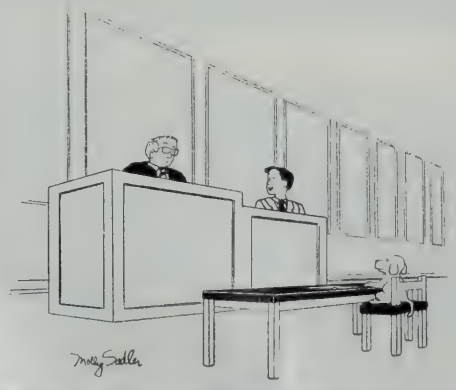
No Kidding

IN THE WORLD of mature people a joke is funny once, and should never be repeated in the same company. But children, having decided that a joke is funny, go on repeating it, laughing more loudly each time, until they collapse in hysteria. The mental age of a man might be gauged by observing how often he can laugh at the same joke.

–*The Papers of Samuel Marchbanks,* by ROBERTSON DAVIES

Failing Mark

THE RESULTS of the most recent International Math and Science Study reveal that in physics, U.S. 12th-graders finished last behind 20 other countries.



"I taught him to beg, but how was I to know he wouldn't earmark those funds as taxable income?"

Even though the U.S. dedicates one the largest shares of GDP to educati it has fallen behind other econor powers in high school graduation ra

The President [has] outlined a lita of new education programs that very similar to federal programs alrea on the books. There are more than 8 federal education programs spre across 39 federal agencies. If new fed al education programs were the ansv to educational excellence, our scho would be among the world's best.

–SENATOR PAUL COVERDELL (R–Ga

Something Stinks

PASSENGERS staggering into Briti Airways' terminal 4 arrivals lounge London's Heathrow Airport a being met—thanks to capsules hidd in the floor—with the aroma of fres ly cut grass and the scent of the sea

They might need some soothin Many are furious over BA's latest lit trick—weighing their hand luggag First and business class passengers wi more than nine kilos are being forc to put it in the hold. Economy cu tomers are allowed a meagre six kilo

BA says passengers have been arri ing at the gates with too much har luggage, delaying flights. But the ne arrangements have led to some fer cious arguments around the check- desks. If the whiff of ozone doesn't c the trick, perhaps BA could try tear ga

–*Financial Times*

Why He Won't Resign?

BILL CLINTON has not had a priva home since he left Midland Street i Little Rock in 1983 to move into th Arkansas governor's mansion.

Clinton may be hoping that if h can stay in the White House unt January 2001, the University Arkansas might come up with a apartment for him at the Clinton pre idential library under development.

Critics of the President have anoth er possible solution. One points ou that Allenwood Federal Penitentiar in Pennsylvania is undergoing a bi renovation of its dormitories.

–*Washingtonian*

Tomi Campbell and Larry King,
National Italian American Foundation Gala,
Hilton Washington & Towers.

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I didn't know."

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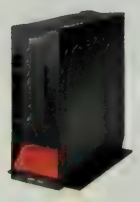

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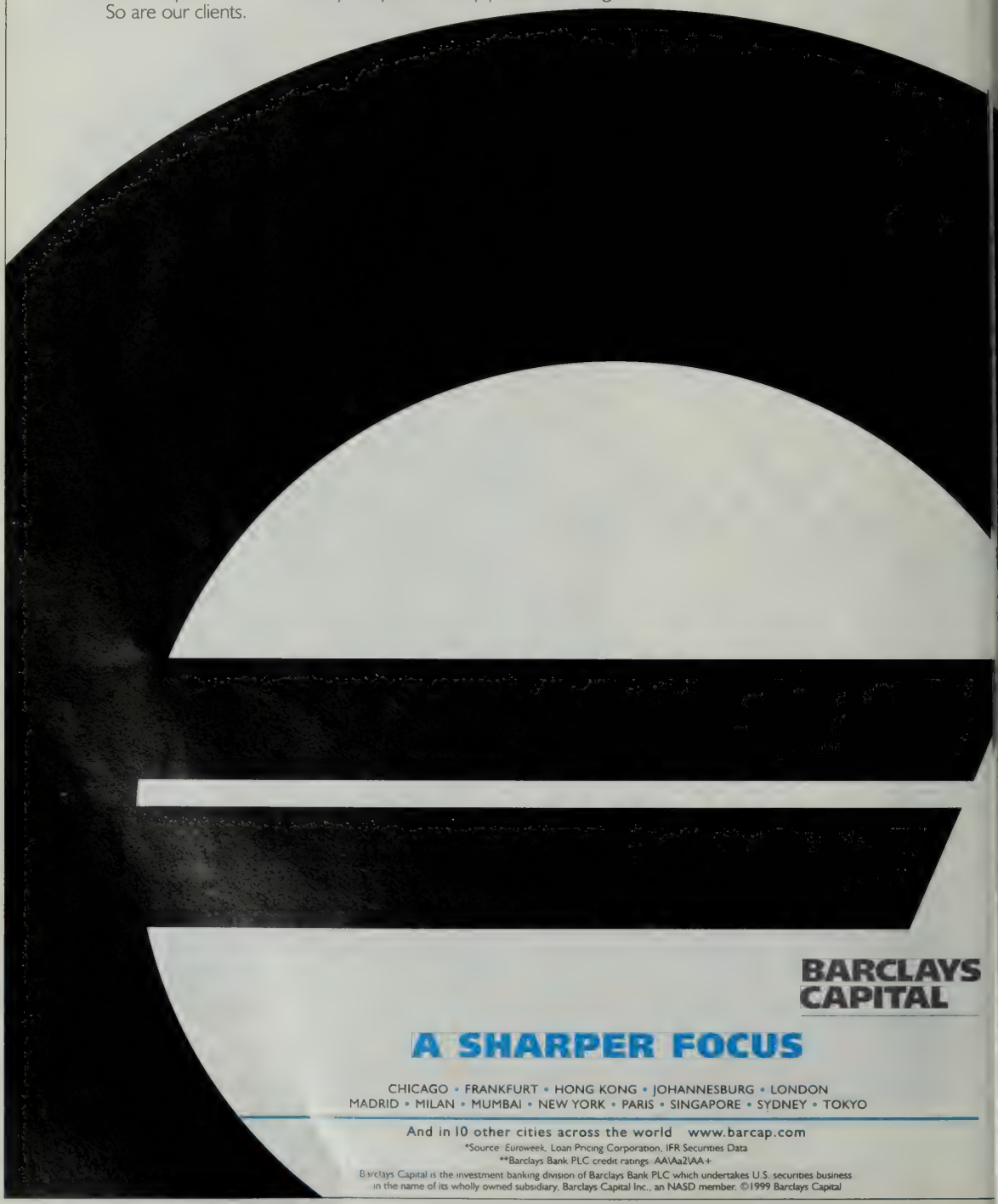

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*Source: *Euroweek*, Loan Pricing Corporation, IFR Securities Data

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Commentary

events at home and abroad

Caspar W. Weinberger, *Chairman*

LOOK BEYOND THE RHETORIC

FROM THE WELTER of new proposals (which would use up of the as-yet-unrealized budget surplus) in the Presint's State of the Union Message, two issues—as well as ne significant omission—stand out.

Mr. Clinton has repeatedly stated that any budget surus must be used only to "save Social Security," yet in his ew budget he has recommended literally hundreds of es for any surplus. Mr. Clinton has not submitted any tailed plan for saving Social Security, although he did opose that we commit 62% of the projected $4.4 trillion udget surpluses over the next 15 years to Social Security, nvesting a small portion in the private sector just as any rivate or state government pension would do." But, as lan Greenspan has testified, the government's investing the stock market could threaten the economy. The only ire thing that plan would produce is more government terference in the affairs of private corporations.

But this is not enough for Mr. Clinton. He has also roposed a new, additional system that would use "11% f any surplus to establish Universal Savings Accounts USA Accounts)." With these accounts, adults could hvest their savings as they choose, and they would receive ome federal money to match a portion of those savings. his sounds suspiciously like a dole for everyone.

Before the State of the Union speech, some wag sugested that in the President's current position the best vay he could spend $100 billion of the surplus would be o give each senator $1 billion. The USA Accounts might e a first step in this direction. There is one certainty in Mr. Clinton's proposals: As far as Social Security is conerned, the government—not individuals—will be in harge of any investing in the private sector.

Power Grab

Also, if the President has his way, the federal governnent will move toward more control over the day-to-day operations of our public school system. Up to now, our public schools have been run by local school boards or charter groups and have been financed by local and state taxes, with some additional funding from the federal government. The federal government has had no control over the running of schools, but under Mr. Clinton's plan, school districts will have to adhere to a series of "musts," if they want federal funds. This proposal will delight those who think that Washington is far better able to run our schools than are local communities.

What We Have Done—and Left Undone

In the foreign policy and security segment of Clinton's address, there was a significant omission. The President listed many "accomplishments" of which Americans "can be proud." Included in these was peace in Northern Ireland. The British and the Irish may be a little surprised to know that this was achieved "with our leadership." And people in Kosovo—those still alive—will be equally surprised, but scarcely heartened, by Mr. Clinton's statement that "with our NATO allies we are pressing the Serbian government to stop its brutal repression in Kosovo." Is there anything that we have done in Kosovo that should make "all Americans proud"?

The President spoke of Iraq and its refusal over the last decade to destroy its "weapons of terror and the missiles to deliver them." But we do not need to worry about this because the President assures us that "America will continue to contain Saddam." The President spoke of restraining the spread of nuclear weapons and missiles, but by omitting any mention whatever of acquiring an effective missile defense against those "weapons of terror," he demonstrated how much he prefers shadow to substance.

Mr. Clinton's original draft of the State of the Union address included a pledge of $7 billion for building a missile defense system. But he removed it after Russia's Duma again ceased talks on the long-delayed Start II Treaty in January. The day after the State of the Union address, the Pentagon reported that the Administration is going to ask for $6.6 billion for a ground-based (the least effective) missile defense system. But the Administration adamantly refuses to abandon the Antiballistic Missile Treaty, which prevents us from ever deploying an effective missile defense.

It is most important, I think, to look beyond the rhetoric to see what is really being done to defend our nation, to reduce the role of the federal government in the lives and education of our people and to increase the power of the individual citizen. When we take such a look, we see very little being done. ■

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Digital rules

echnology and the new economy

y Rich Karlgaard, *Publisher*
ublisher@forbes.com

THE Y2K BOOM?

O ONE CAN SAY for certain how the Y2K mess will sort self out. Anybody's guess is in play. Naturally, a few Chicken Littles have jumped on the nearest stage to prophesy haos, blackouts, bank runs and food hoarding. Most mericans have turned their backs on such tosh. They xpect a modest middle ground—a monthlong drizzle of inor inconveniences, perhaps a stuck line at the grocery tore or a bum credit card bill. But what if Y2K fools verybody and drives a stampede *into* the stock market?

Try this. Ask your colleagues if they would fly on Jan. 1, 2000. Most people I talk to say something like: "Yes, but only within the U.S." That's the common answer—at least if you're not talking to Chicken Little.

Now extend the same thought to stocks, bonds and cash. Where do you want them parked on Jan. 1, 2000? My hunch is that rich people and institutions around the world are asking that very question. They may arrive at the same answer as have the plane passengers: the U.S.

MICROSOFT—THE GREAT HUMILIATOR

I never dreamed Microsoft would go past a $300 billion market cap—and said so in this column only a few months ago. Whoops! It's now $440 billion.

THE INCUMBENT'S DILEMMA

HESE ARE ROUGH DAYS for incumbent businesses—perhaps ours. Climbing your palace wall and storming your gate is Terrorist.com, red in tooth and claw, frothing in market cap nd commanded by a hyper 28-year-old college dropout vith an SAT score of 1600, 2 million founder's shares—and o mercy. His company employs 300 people; their fully oaded salary and benefits packages average out to $60,000 ach. Fully a quarter of them became millionaires when Terorist.com went public at $18 per share and then tripled.

Credit Terrorist.com for performing today's alchemistic rick: transforming human capital into market cap. Can ou do that? Mature companies will have to learn how if hey are to stay solvent and alive in the digital economy.

What brought this to mind is a company called General Magic—not an incumbent in the strict sense, but a fallen-star software company that in the early 1990s promised to usher in the age of handheld computers. Whether too early or too poorly executed, General Magic stumbled, blew it and is now surviving by a thread.

Pierre Omidyar, a 28-year-old software developer at General Magic, grew discouraged and quit his job in 1995. Nobody tried to stop him. The ship was sinking and cuts were needed anyway. Colleagues said the ebullient man had lately seemed remote. Perhaps he was sleepy from all those late nights; he had become fascinated with the Web as a medium for shopping. Keeping him up at night was his fiancée's passion for collecting Pez (the colorful candy) dispensers and the lack of trading partners in the San Francisco area. One night a solution sparked! An on-line auction, soon christened eBay.

Today eBay is worth $11 billion, 17% of it Omidyar's. By contrast, General Magic is worth $160 million and appears to be a ghost of its former promise. Who was the chowderhead at General Magic who let Omidyar and his $11 billion idea slip through the cracks?

Who is slipping through your company's cracks? Here's something to think on. Take your company's market cap and divide it by the number of employees. Microsoft has a $440 billion market cap and 25,000 employees. That's $17.6 million per employee—a stunning capture of human capital! Contrast that to an old-line manufacturer of steel, ships or autos, whose typical market cap per employee is $200,000. Not even close. Is it that the manufacturer's employees are only 1.1% as good as Microsoft's—or is it the inability to convert human capital into market cap?

Here's a hint: Take 0.99 to an infinite power. What do you get? Zero. Now take 1.01 to an infinite power. You get infinity—and a clue to the problem facing older companies. Their salary/perks/status-minded managers are driven, quite logically, to hire 0.99-type employees as a human chorus that makes the manager look good. But at Terrorist.com the manager's financial future is lashed to market cap. He, logically, hires 1.01-type employees, who he hopes will make him fabulously rich.

There is only a 2% difference between a 0.99 and a 1.01. Hardly detectable. But multiply it out through several hires and soon the incumbent's dilemma becomes a real pickle. ■

Admittedly, some of the changes we made are for the wo

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"...see a world in a grain of sand..."/Edited by Ben Pappas

Marian the Cybrarian

DOUG DONOVAN

"People think libraries will be obsolete because of the Internet. That's not happening."

REMEMBER HER FROM *The Music Man*—the prim spinster type with the granny glasses, her hair confined in a no-nonsense bun? Marian the Librarian has gone wired.

The rise of the World Wide Web should have meant the demise of the librarian. As mouse clicks began to replace card flips and the Dewey decimal system, the future seemed bleak. Nearly one-quarter of library schools once in existence have shut their doors, most since the 1970s. Fewer than 5,000 degrees in library science were awarded in 1993, down 30% from 20 years before.

The University of California at Berkeley closed its School of Library and Information Studies, rejiggered its curriculum and created the School of Information Management and Systems. "Today Berkeley's course descriptions read more like computer-science classes," says Ann O'Neill, director of the American Library Association's accreditation office. The University of Michigan, Univeristy of Illinois and Florida State have made similar upgrades.

GREG CHRISTIE

Now the wired pitch is paying off. Digital-savvy librarians are being wooed not just by public or university libraries, but by companies to set up and manage Web sites and on-line research centers. Berkeley graduates pursue corporate jobs starting at $60,000, more than twice the pay of their unwired peers who toil between the stacks, says Hal Varian, dean of the reborn library school.

Tech-intensive jobs pay 12% more than traditional posts (though starting salaries rose only 2.7% overall in 1997), according to the *Library Journal*. "People thought libraries would become obsolete because of the Internet," says one convert, Julie James. "That's not happening." A 1994 graduate of the University of Illinois program, she had enrolled to become a librarian; these days she describes herself as a "cybrarian."

Shearing locks, watching jocks

IT'S NO SURPRISE that the musings of investment oracle Peter Lynch motivate people to change strategies. But when Roy Lancaster read that Lynch was looking at salon companies, he changed careers.

He gave up a 25-year tenure in advertising to get into the hair business. He worked for a local salon and visited kiddie boutiques, such as Kidz Kuts in Livingston, N.J., which features Nintendo games and TV screens at every station.

MICHAEL WITTE

Then he cut to the chase: Why not cater to manly men, offering them a shampoo, a trim—and sports? In 1994 he sank $1 million of his own money, plus $1 million from investors, to open Big League Barbers—supposedly the first sports-theme hair salon for men.

Um, didn't we once call this a *barber shop*? The smoky, testosterone-rich site where men gathered on lazy weekends to solve the world's problems over the drone of a football game on the tube?

Okay, so Lancaster's shops are tonier, with big-screen TVs and tons of junky sports memorabilia from home-town teams and national franchises. Planet Hollywood meets Supercuts.

Today he has nine stores, in Charlotte, Indianapolis and Atlanta. Revenues rose almost tenfold in four years, to $1.2 million last year (when he still racked up a loss of $100,000). Lancaster, based in Millbrook, N.Y., hopes to expand franchising opportunities. He should watch out. Supercuts owner Regis Corp. could move into his male niche. Then again, why worry? "Almost all of the men I asked," he says, "hated getting their hair cut." –D.D. ■

The Forbes/Bridge Economic Forecast Report

Edited by Shlomo Z. Reifman

THE U.S. ECONOMY	Actual latest	1998	1999 est mean	1999 est high	1999 est low	4-wk % chg in mean
Automobile sales[1] (mil)	16.0* dec	16.0a	14.5	15.7	12.0	3.2
Capacity utilization (%)	80.9 dec	80.9a	80.3	82.6	78.0	0.0
New housing starts[2] (thou)	1,616* dec	1,616a	1,506	1,624	1,400	2.7
Retail sales[3] ($bil)	1,982 *p dec	2,134e	2,103	2,150	2,038	–8.7
Trade balance[4] ($bil)	–165* nov	–222e	–271	–220	–333	16.6
Unemployment rate[5] (%)	4.3 dec	4.3p	5.0	5.3	4.0	–3.3
Gross domestic product[6] (%)	5.6p 4th qtr	3.9p	2.4	3.4	1.5	9.3
INFLATION						
CPI services (unadjusted) (%)	2.6 dec	2.6a	2.7	3.1	2.4	7.0
CPI total (unadjusted) (%)	1.6 dec	1.6a	1.9	2.6	0.9	–3.5
INTEREST RATES						
30-year Treasury yield (%)	5.11	5.09a	5.15	5.90	4.00	–3.7
3-month Treasury yield (%)	4.49	4.48a	4.38	5.50	3.25	–5.2
PRICES						
CRB-Bridge spot indexes	236.32	235.22a	235.00	235.00	235.00	7.0
Gold per troy ounce ($)	284.80	288.10a	273.33	300.00	250.00	–4.7
Oil/bbl W Texas Intermediate ($)	12.45	12.05a	13.00	17.00	9.50	–16.6
CURRENCY						
German marks per dollar	1.71	1.68a	1.69	1.83	1.60	–6.1
Yen per dollar	116	114a	133	158	110	–1.9
Dollars per Euro	1.14	1.17	1.19	1.19	1.19	NA

FEDERAL FUNDS WATCH Next Federal Reserve meetings: Feb. 3, 1999 and Mar. 30, 1999

Current rate: 4.75% **Last action:** Nov. 17, 1998 –25 basis points

Likelihood of shift in interest rates in the next 90 days by the Federal Reserve

Very likely **Possibility of decrease or increase** **Very unlikely**

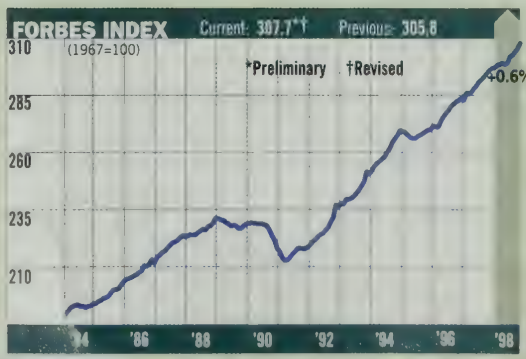
Estimates are contributed by leading economists, w surveyed biweekly by Bridge Information System Forbes magazine. Consensus forecasts as of 1/28/9

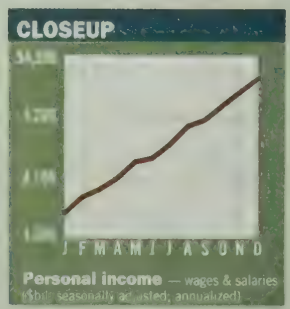
While the consensus estimate *(see t on left)* for growth in real gross dor tic product in 1999 is only 2 James Paulsen, chief investment of at Wells Capital Managemer formed by the merger of the advis companies of Wells Fargo and N west—forecasts a 3.5% increase.

Paulsen cites several reasons for optimism. He thinks that the U dollar—which has been declining s late summer—will lose another over the next 12 months, and that will help U.S.-based exporters. Paul expects average hourly wages to g only 3% in 1999, versus 3.8% last y but he doesn't think this will pr damper on consumer spendi Reason: Paulsen expects the inflat rate to be close to zero in 1999.

SPECIAL FOCUS

Over the last five years the unemployment rate (seasonally adjusted) fell from 7.3% of the civilian labor force to 4.3%, but our survey economists do not expect it to remain that low through 1999. Their curren forecast: 5% by the end of the year.





Current	Previous	Change
$4,261.9	$4,240.3	0.5%

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Our Web site, www.forbes.com, has daily updates on economic estimates and detailed information on Forbes Index components.

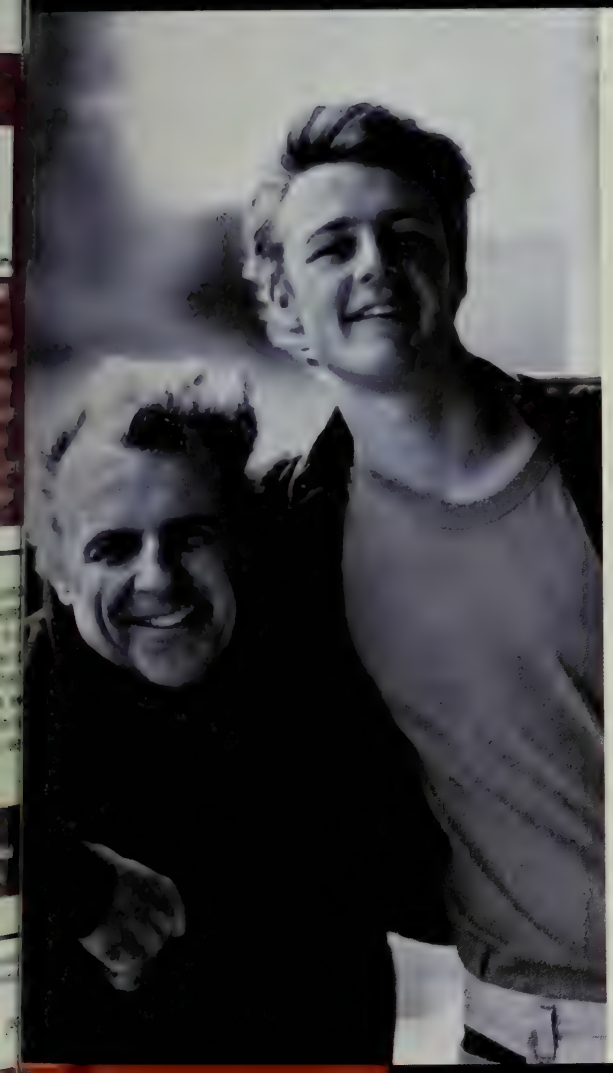
*Twelve months. a: actual. e: estimate. p: preliminary. [1]Autos, light and heavy trucks, including imports. [2]Total single and multiple family, unadjusted. [3]Excluding auto sales, annualized and seasona [4]Total goods and services, annualized and seasonally adjusted. [5]Percent of civilian labor force. [6]Quarter-to-quarter percent change, annualized. NA: Not available. *Source: Bridge Information Systems*

YOU'RE PSYCHED ABOUT THE FUTURE.

YOU'RE FULL OF NEW IDEAS.

YOU'RE LOOKING TO START A BUSINESS.

You're the guy on the left.



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A man who's been doing the impossible for half a century.

" Chung's cattle diplomacy may someday rank with U.S.-Chinese Ping-Pong diplomacy as a major diplomatic ice breaker. " *(Newsweek, November 9)*
" The high-profile cattle drive marked a milestone in the bitter history of relations between the two Koreas... " *(Time, June 29)*
" ...the first civilian since World War II to make that crossing without a government escort. " *(The Washington Post, June 17)*
" ...this will form the breeding ground for reconciliation and peace between North and South Korea. " *(Süddeutsche Zeitung, June 17)*
" Mr. Chung's journey is not a sentimental one. He's hoping to revive several business projects in the North... " *(Financial Times, June 15)*

Imagine crossing a border that's been closed for 48 years. Then imagine doing it with 1,001 head of cattle.

Achieving the "impossible" is nothing new for Chung Ju-yung, the 83-year-young Founder and Honorary Chairman of Korea's Hyundai Business Group. This is the same man who literally brought the sea to its knees, reclaiming land on Korea's west coast with a large tanker destined for scrap. And the one who ingeniously used a small fleet of barges to transport prefabricated components nearly halfway around the world 19 times to build Jubail Harbor in Saudi Arabia, one of the construction wonders of the 20th century. In these and countless other projects over the past half-century, Chung found a way where others said it couldn't be done.

As Hyundai looks toward the future, we share Chung's spirit- an unwavering drive and ambition that has made us what we are today. And what will propel us into the ranks of the world's industrial leaders in the new millennium.

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Iron & Metals

Financial Services

Health Care & Public Services

HYUNDAI

TECHNOLOGY Onetime glamour stocks in the database market aren't so glamorous anymore. They have a little problem, spelled M-S-F-T.

Microsoft plays the spoiler, again

By Julie Pitta

THE $9.5-billion-a-year database market grew 10% last year, a respectable rise for a product that has been around for 20 years. So how is it that once-promising players Sybase and Informix have been struggling and Oracle, the market leader, warns of tough times ahead?

The answer, in a word: Microsoft.

Microsoft is roiling the database business with cutthroat pricing, product bundling and sweet deals for customers and software developers—the same tactics by which it dominated PC software, earned the enmity of competitors and provoked a bitter U.S. antitrust lawsuit that charges Microsoft, in effect, with the crime of giving consumers too good a deal.

Now the software giant has vaulted into a three-way race with number one Oracle and number two IBM. Sybase and Informix are fighting to stay relevant and scurrying into market niches they hope will prove too small for Bill Gates' voracious appetite.

The bitter irony in this war is that Sybase armed its mortal opponent. In 1989 Sybase, which makes databases for giant companies using minicomputers costing half a million dollars, agreed to license its programming code to a PC software maker with annual sales of just $805 million—Microsoft. It seemed like a good idea at the time: How could a little desktop software company ever be a threat to the high end of the market?

Rivals scoffed when Microsoft first entered the market with a kludgy, underpowered product. In typical fashion, Microsoft kept grinding away at it: The 7 in SQL Server 7's name means the product is in its seventh major iteration; the latest version came out in January.

"It took us a release or two to give the traditional co- petitors in the da- base market a scar" says Douglas Lela t the Microsoft gro manager who ov- sees marketing SQL. He now drawing a be on Oracle. "Ou friends in Redwo Shores [Calif., wh Oracle is based] going to feel t pressure."

Just how seriou is the threat? S Server 7 sells for little as $100 p user, one-third t price of Oracl cheapest databa and almost one-fi the price of the ma offerings of Sybase a Informix.

The lowball pricing wi converts. "Why did I pi Microsoft? It comes down to o thing: cheapo, cheapo, cheapo," sa Stuart Mowat, director of decisi support for HarperCollins Publishe He uses SQL to store 200 gigabyt (equivalent to 300 CD-ROMs) of cu tomer information previously stor on an IBM minicomputer.

Moreover, Microsoft offers additional 50% discount to any cu tomer that dumps IBM, Oracl Sybase or Informix to switch to SQ "I expect they'll eventually give away," grumbles Robert Finocchi Informix chief executive.

Lavish perks further entice Microso "partners." To land HarperCollin

Microsoft threw in the free services of a database expert for four months, Nowat says. That's a $50,000 value. This year Microsoft will spend $600 million on such inducements. That has forced Oracle to set up a $500 million fund of its own.

"They are a monopolist," Oracle Chief Financial Officer Jeffrey Henley says of his rivals in Redmond, Wash. "They'll do a lot of wild things to beat someone down."

Monopoly doesn't really describe Microsoft's position in databases—not yet, anyway. Microsoft has a 6% share of the market, to Oracle's 43%. The difference between the two firms is more in staying power. Microsoft has over $9 billion in cash; Oracle has $2.1 billion. In a price war, which is what the programmer freebies are all about, Microsoft will have the upper hand.

High-powered databases, which scale mountains of payroll, inventory and other data, are the Ferraris of software: complex, pricey and a world apart from Microsoft's PC products. SQL isn't as muscle-bound as rivals' software—but it is powerful enough to win over corporate accounts that scoffed it in the past.

"Anybody who tells me they can't run their business on SQL Server 7 must be NASA," says David Lish, a vice president at Transamerica Corp. The San Francisco insurer installed SQL to track 100 million U.S. properties and refer prospects for flood insurance to other insurers.

But the threat isn't so much that Microsoft will steal dozens of big corporate accounts. Most already have high-end databases; switching to a new one can be prohibitively expensive and a hassle. "Once you've deployed a database, it's very hard to move," says James Griffin, a marketing director at Sybase.

And the big-company market is saturated anyway. The real threat is that Microsoft will eat up all the growth in the untapped segments that offer the richest opportunity: small and midsize businesses. These clients are too small for high-powered databases running on UNIX, yet they pose a lucrative market for databases running on NT, says analyst Carl Olofson of International Data Corp.

That is why some developers are tailoring their products to Microsoft. Symix Systems Inc., a $100-million-a-year-plus designer of manufacturing software in Columbus, Ohio, passed over the Oracle platform two years ago in favor of Microsoft, which chipped in a subsidy for marketing and training.

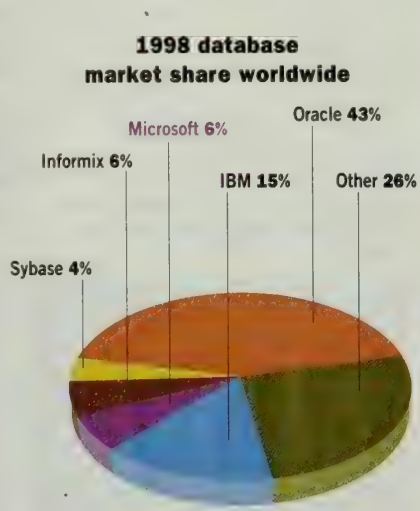
"Our customers have maybe one person doing technology. Microsoft's product is simpler than the others, and that's very important," says Stephen Sasser, president of Symix.

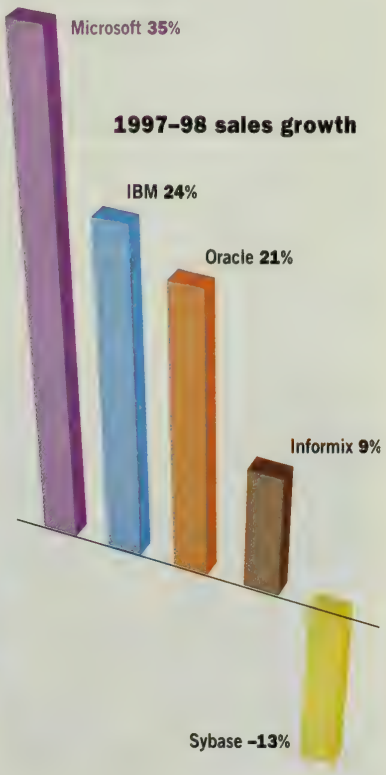
Spacelabs Medical Inc., which makes medical devices and related software, has dropped Sybase to gear its hospital automation system to Microsoft's SQL. Andrew Pitts, a Spacelabs product manager, says the Sybase version required a $100,000 midrange computer, while the SQL version runs on a Dell server that costs $42,000. But he cites a second reason that is more ominous for Sybase: Its slide in recent years makes him nervous. Says Pitts: "Their support has gone downhill, and their prices are going up."

Sybase professes to be unconcerned, but then, it has underestimated Microsoft before. Its stock peaked at $57 back in 1994, for a total market value of $4.4 billion; these days the shares hover at around $10 after the company lost $1.15 per share last year. Informix hit a high of $36 in 1996, giving it a market capitalization of $5.4 billion. The shares are down to a third of their high. At $12, they go for 40 times earnings.

All of which makes you wonder what might have been—what if Sybase hadn't handed over its software code to Microsoft a decade ago? Who let that happen? Mark Hoffman, who founded Sybase in 1984.

These days Hoffman runs Commerce One, a small electronic-commerce outfit in Walnut Creek, Calif. About a year ago his new company was shopping for a database. And which one did it buy? Microsoft's. "It works fine," Hoffman says. "And we got a good price." ■





Three-horse race

Microsoft rules the desktop in PC software, while its share of database programs on bigger computers seems small for now. But its blistering sales growth in that segment has sent lesser entrants seeking protective niches and put Microsoft in position to challenge IBM. Next up: Oracle.

COMPANIES GE has a proposition for Boeing: a jet engine plan that would revive GE's reputation and Boeing's bottom line. But it's a high-risk proposition.

Let's make a deal

By Howard Banks

FOR QUALITY-OBSESSED General Electric Chairman Jack Welch, the embarrassment was considerable. At a cost of over $2 billion, GE had developed a jet engine specifically for the long-range Boeing 777. But the GE 90 failed several critical tests during certification.

So archrivals Pratt & Whitney and Rolls-Royce together won over 70% of the airlines' engine orders for the 777. GE came in third, and last year took a $275 million writedown on the program. With sputtering fury, Welch told his engine designers they could spend not one more dime developing a more powerful version of the GE 90.

Jack Welch is not the kind of man to change his mind—except when times change. It appears that, in recent private talks with Boeing Chairman Philip Condit, Welch has told Condit he is now willing to spend the $500 million or so it will cost to develop an enlarged version of the GE 90. But there are two provisos.

First, Boeing must proceed soon to develop a 300-plus passenger version of the 777 that can fly up to 8,700 miles. The current 777 can fly 350 passengers 5,600 miles. Second, Welch is demanding that GE be the exclusive engine supplier for the new 777. That would be unusual in an industry where airlines normally have the option of choosing among all three enginemakers. The only engine monopoly on large airliners right now is Rolls-Royce's deal on Airbus Industrie's new long-range A340, which would be the main competitor to a long-range 777.

The stakes are high. To develop the new version of the 777 would probably cost Boeing at least $1 billion; it wouldn't deliver the first plane until 2003. Why would Condit go along with this proposition?

Because Boeing badly needs a new product to replac aging 747. Since its launching in 1969, the warhorse probably generated over $35 billion in gross profits. production has petered out to one a month, both bec of a collapse in orders from Asia and because the 747 i longer particularly efficient.

The 747-400 can fly 8,000 miles, but at that rang costs 20% more to operate than the Airbus A340 or the posed 777. Welch's ace-in-the-hole is GE Capital, wh could, while the long-range 777 is being developed, h Boeing by financing some 747 sales, either for lease or Asian airlines too broke to buy the planes unaided.

For GE, it would mean a chance to redeem itself for GE 90 fiasco by snagging a lucrative new contract wo potentially $20 billion or more over 20 years. The r engines would sell for maybe $12 million each, compa with $10 million for the current version of the GE 90.

Apart from the vast potential payoff, what else happe to change Welch's mind? GE's jet engine technical peo now say that they have an opportunity to trump both P & Whitney and Rolls-Royce. They've told Welch they produce an engine with 115,000 pounds of thrust for new plane. That compares with 92,000 pounds for the c rent GE 90 and 110,000 pounds for the engines both P and Rolls currently propose for the longer-range 777.

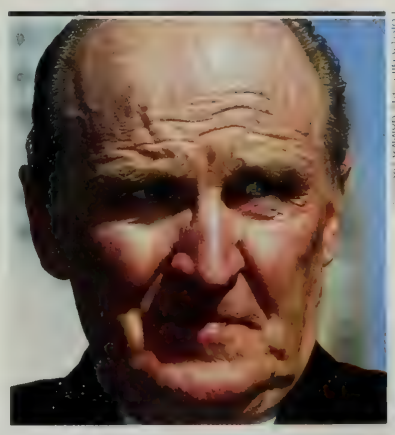
In doing so, GE engineers used the latest computeri 3-D aerodynamic modeling to smooth the airflow inside hottest and hardest-working section of the engine. T also developed tougher composite materials that will all the giant front fan to be made larger.

Wait a minute. Didn't GE engineers thus defy Welch's b on further research? Not really. The new technology v originally designed for existing GE 90s and other engines improve fuel burn and durability.

General Electric engineers contend the 5,000-pou thrust margin over that of the competition will make all t difference. It will position their engine as the only one po erful enough to make the new 777 effective.

Pratt and Rolls, they say, would have to start fro scratch. Maybe. Rolls says it will match anything GE can c Pratt seems less interested.

Jack Welch has upped the ante. Now it's up to P Condit to make his move.

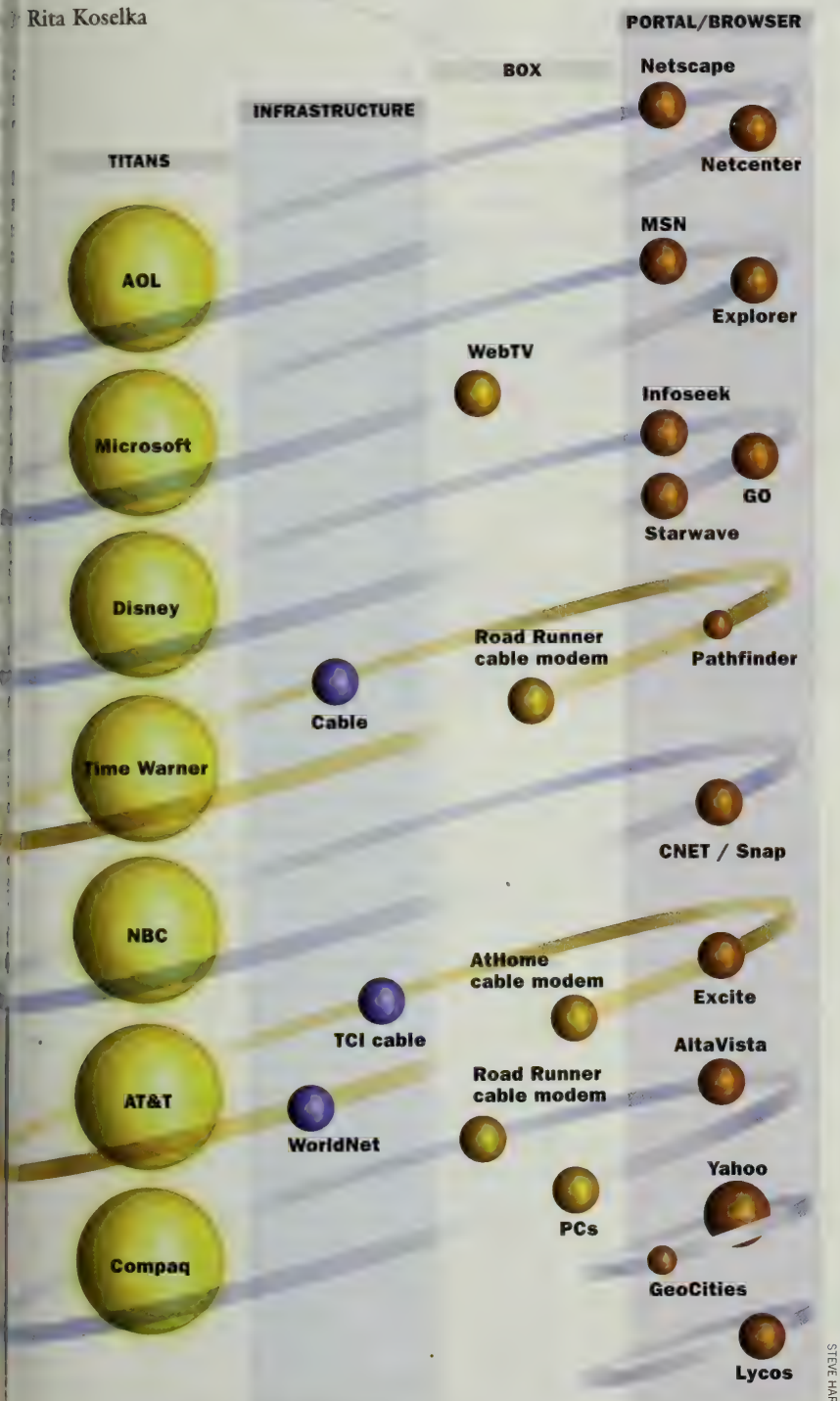


GE's Welch (left) and Boeing's Condit
Welch makes an offer Condit might not refuse: GE will make a better engine; Boeing won't shop anywhere else.

INTERNET The Web is entangled in dealmaking. Here's a guide to sort it out.

Cyberspace: going into orbit

Rita Koselka



Fueled by stellar stock prices, the World Wide Web is in a consolidation frenzy. **AtHome** is buying **Excite**, **Yahoo** wants **GeoCities, Compaq** will spin off part of **AltaVista**.

Alliances are lining up the pieces—from intangibles like brand and content to hard assets like networks and cable modems. It's becoming clear what they have—and what they lack.

America Online has 15 million paying subscribers. It soon will own **Netscape** and its browser and Web site ("portal"). But **AOL** lacks its own wires. No wonder it says **AT&T** should have to open up access to cable lines when it buys **TCI**.

Microsoft has a billion-dollar stake in cabler **Comcast**, a floundering **WebTV** box and its own browser and portal. **MSN** pulls in 19 million visitors a month, but no one pays to drop in. The Evil Empire's strategy seems halfhearted.

Disney owns 43% of **Infoseek** and just launched the **GO** site; but no box, no wires. **Time Warner** is in a space jam: It is big in cable and has a promising cable-modem biz, but its portal, **Pathfinder**, is a black hole.

And **AT&T**? A hat trick: **TCI**'s lines, **TCI**'s 39% stake in **AtHome** and (soon) a stake in **Excite** (plus **AT&T**'s **WorldNet** access service). **NBC** is just getting started, as is **Compaq**.

Yahoo has a cool name and 27 million viewers a month—but no wires, no boxes, no media partner. It has something rarer: profits. But can it resist the likes of **Disney**, **Microsoft** or **AOL**? **Lycos** lacks **Yahoo**'s mass. Look for it to get pulled into someone's orbit. Soon. ■

COMPANIES How do you maintain a sizzling hot growth rate without cheapening the brand? The problem starkly confronts Starbucks today.

The cappuccino conundrum

More star than bucks
Can food fuel more traffic?

By Kelly Barron

JONATHAN TORGOVNIK

HOWARD SCHULTZ IS A GENIUS. He discovered that if you translate "regular coffee" into Italian you can charge double for it.

Schultz hit on the idea of bringing the Italian espresso bar to America in 1983. Now his Starbucks chain is an institution, with 2,000 locations, including 170 abroad. Revenue in the fiscal year ending Sept. 30 will probably top $1.6 billion. With its progressive Seattle spirit—complete with stock-optioned counter crews—Starbucks created a new coffee cult. Wall Street values Starbucks Corp. at $4.7 billion, making Schultz, 45, worth $169 million.

But there are two things going wrong with this success story. One is that copycat stores are springing up on every other street corner. The other is that, even without a single competitor, Schultz would sooner or later run out of opportunities for expansion. And then what would happen to his earnings? Starbucks' average annual profit growth of 68% for the past four years is why its stock trades at a frothy 68 times earnings.

Growth at Starbucks' outlets is starting to slow. Store openings, occurring daily, propelled a 25% retail sales increase in the Dec. 27, 1998 quarter, to $343 million. But that's down from a 32% jump in the same period a year ago. What's more, sales at stores open a year or more grew at just 3% for the period, the lowest increase in seven quarters.

Starbucks alibis that same-store numbers are flattening because it purposely clusters units to saturate the market, thereby cannibalizing sales. Maybe. But in the restaurant business, unit profitability matters as much as ribbon cuttings. Every incremental dollar at an existing shop contributes 30 cents to 40 cents to the bottom line of a typical eatery. When same-store sales slow, it becomes more difficult to increase profits.

And so Starbucks is broadening beyond coffee shops. It partners with Dreyer's and Kraft Fo[ds] putting its name on ice cream [and] coffee sold in supermarkets. It [is] coffee to airlines. You also can [find] the brand stamped on bottled F[rap]puccino drinks, courtesy of a [deal] with PepsiCo.

What's wrong with this expans[ion]? Just that it could conflict with [the] brand image. People pay up to $3 [or] for a caffe latte because it's suppo[sed] to be a premium product. When [you] see the Starbucks name on wha[t an] airline is pouring, you wonder.

"Starbucks is losing its wh[at] someness," grouses restaurant ow[ner] Hamid Mousavi, 38, as he sips [his] morning brew at a Coffee Bean & Tea Leaf cafe, across the street fro[m] Starbucks in West Los Angeles.

The competitors, meanwhile, [are] going mass market, too. Pull up [to] Mobil gas station and the convenie[nce] store has certified organic coffee s[up]plied by Green Mountain Coffee [at] McDonald's pours a blend from S[ee]tle Coffee Co. in the Pacific Northw[est].

Growth has to come from so[me]where. On the retail front, Starbuck[s is] trying to increase its average sales t[icket] price—which a competitor [has] hasn't budged in nearly three years—[by] expanding its food offerings. T[hat] means everything from Krispy Kre[me] doughnuts in a New York City tes[t] Fresh Fields gourmet sandwiches [in] Washington, D.C. It also is test[ing] table service in Seattle at Cafe S[tar]bucks, along with hot meals and al[co]hol. And in San Francisco it's go[ing] bohemian with Circadia—a coff[ee] house concept with tattered rugs, hi[gh]speed Internet ports and live music.

Starbucks hopes more grub [will] draw traffic at lunch and dinne[r] when its cafes aren't as busy. But [the] introduction of food potentially co[m]plicates the simplicity and speed [of] Schultz's original concept.

"From a preference standpoi[nt] Howard would probably not have [to] go into the mix he's entering," s[ays] Tom O'Keefe, chief executive [of] Seattle-based Tully's Coffee, a St[ar]bucks competitor. (Schultz declin[ed] repeated requests to talk to FORBES.)

Another Starbucks venture: selli[ng] its Barista line of espresso machines a[nd] ceramic mugs in other retail chai[ns]. Maybe consumers will be more apt

y them at department stores than in e cafes, where merchandise sales lled during December.

Then there's the recent acquisition Tazo, a high-end tea company. rhaps Schultz can create a conituency of tea snobs.

His larger challenge: to re-create institution and keep it from going le. That's a tall order—make that a *nti* order. Some companies have rewdly managed to do so. The Gap nt from selling jeans and T shirts to coming America's most popular thier, offering everything from en's suits to body lotion. Others, ch as McDonald's, can't go far yond burgers and fries.

If Starbucks is, in the end, the cDonald's of coffee, that's not the d of the world. Mickey D's stock ades at a hearty 36 times trailing rnings. But that kind of multiple ould price Starbucks at $27—a long lp down from its current $51. ■

Caffeine rush

The number of coffeehouses in the U.S. has grown from only 500 in 1991 to nearly 7,000 today, according to the National Coffee Association. Here's a look at the players trying to duplicate Starbucks' success.

Company	Number of stores	Description
Second Cup Ltd	318*	Canadians operate Gloria Jean's, Coffee People, Coffee Plantation
Caribou Coffee	124	The lodge as coffeehouse
Seattle Coffee Co	72	Operates as Seattle's Best Coffee; often sells through others
Tully's Coffee	54	Frequently opens across the street from Starbucks
Peet's Coffee & Tea	44	Granddaddy of the industry; a favorite among the purists
Diedrich Coffee	43	Regrouping, expanding in the South

*Stores in the U.S. only. *Sources: Fresh Cup magazine; Forbes.*

ADVERTISING Sports radio stations are the hottest gig in broadcasting.

A guy thing

By Chandrani Ghosh

It's 1:15 P.M. ON WFAN-AM, an all-sports radio station in New York City, and hosts Mike Francesa and Chris (Mad Dog) Russo are loudly lamenting the New York Jets' loss to the Denver Broncos last month—which blew the Jets' chance to play in the Super Bowl. "The Broncos were ripe to be taken, and they should have been taken!" says Mike. Mad Dog growls: "No doubt about it!"

They yell. They talk over each other. They hang up on call-in listeners who sound uninformed to keep the show moving. Imagine two guys in undershirts chugging Budweiser and ranting about anything to do with sports.

Professional gasbags Francesa, Russo **A hot mix of talk and testosterone.** ■

There is big money in this stuff. Even though sports stations reach only a small audience—typically less than 3% of the market—the niche is very lucrative. WFAN is the highest-grossing radio station in the country, pulling in more than $50 million in ad billings for each of the past two years.

The number two station, at $38 million, is WLTW, an "easy listening" FM outlet in New York. Bought for $20 million in 1986 by Emmis Communications, WFAN sold for $70 million to CBS' Infinity Broadcasting subsidiary in 1992. It's now valued at about $300 million—double what AM stations in New York have been selling for recently.

Numbers like that do not go unnoticed. From zero a little more than a decade ago, the number of sports radio stations has grown to 251 nationwide. Even small markets like Abilene, Tex. and Fargo, N.D. can support one because sports is such a local phenomenon and people are passionate about it. Chicago has three all-sports stations. All the more opportunity to rant about the Bears' miserable season—or the decimation of the Bulls, now that Jordan, Pippen and Rodman are gone.

The appeal to advertisers is simple. A company pitching beer can buy a spot on a hard rock station that targets men in their 20s; a mainstream rock station that goes after men in their 30s; a golden-oldies station that attracts older listeners—or a sports station that hooks the entire 25-to-54-year-old male market. In analyzing Simmons market research, New York-based Interep, which sells radio commercial time to national advertisers and agencies, says that 37% of a typical sports station's listeners

have household incomes above $75,000; the portion for radio in general is 21%.

"All my friends in the industry thought I was an idiot," says Jeffrey Smulyan, 51, chairman of Emmis Communications, who in 1987 converted WFAN to all-sports from music. "People thought it was too narrow—that nobody would listen to sports all day," he says.

For the first few years WFAN bumped along at 1% of the market. But with teams like the Yankees, Knicks, Mets and Jets capturing more fan interest, WFAN did better, too—more than doubling its penetration, to 2.8%. CBS won't talk numbers, but industry experts figure WFAN's operating income (profit before depreciation, interest and taxes) is running 55% of ad billings. That would make it one of the most profitable stations in the country.

Sports radio programming is cheap. Networks barter syndicated sports shows in exchange for time to run commercials. Throw in something like *Mike and the Mad* and play-by-play broadcasts of local teams, and you've a format—one, moreover, that accommodates more c mercials per hour than many other types of programm You can charge more to reach each listener, too. W gets $470 per minute compared with $358 at WQC New York jazz station that reaches more listeners, acc ing to media analyst Duncan's American Radio.

A recent convert to the all-sports format is KVET-A Austin, Tex. Its owner, Capstar, which has 22 sports tions, converted what used to be a largely news talk tion. There's never a lack of stuff for guys to talk ab the University of Texas Longhorns, the Cowb Rangers, Astros and Spurs. Revenues at the stati during the first quarter of the new format, popped from the same period a year earlier, to $426,000.

Why didn't somebody think of this sooner?

MEDIA Nielsen's network customers are whining that TV ratings numbers are out of whack. Nielsen shrugs.

Don't shoot the messenger

By Michelle Conlin

BAD BLOOD between the broadcast networks and Nielsen Media Research over whether ratings are accurate hit a new low in December: NBC's irate research chief threatened to file a suit against the New York-based audience survey outfit.

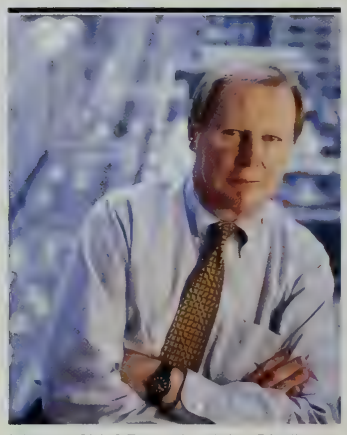
The catalyst was Nielsen's shocking report that TV viewership in the critical 18-to-34-year-old age group dropped 6% in the past year. Put another way, young viewers apparently spent 30 minutes less per week watching TV, presumably choosing instead to rent videos, surf the Net or listen to Puff Daddy's latest CD. "Third World" is how ABC's senior vice president of research, Alan Wurtzel, describes Nielsen's current audience measurement capabilities.

Given that the three major networks account for 16% of its $400 million in 1998 revenue, you'd expect Nielsen to be abashed about the criticisms. But Chief Executive John Dimling, a ruddy-faced mathematician who has been running Nielsen since 1993, is not the least bit nervous. "Our data are accurate, and that's not good news for the networks," he says.

The networks' share of prime-time viewing is 47%, down from the 90% they had in the 1979-80 broadcast season. Just as those numbers have eroded, the networks are simply not as important to Nielsen's bottom line as they once were: 84% of Dimling's revenues now come from local stations, cable networks and advertising agencies. Plus, the networks have nowhere else to go for ratings. Last summer they briefly flirted with starting their own ratings service. But they decided it wouldn't carry much credibility with advertisers.

So network moguls must fall back on their old argument that Nielsen numbers don't accurately reflect viewing habits. Why? Because, they argue, Nielsen measures in 5,000 mainly middle-income homes. Poor people, vacation homes, offices and bars are underrepresente ignored altogeth

But how ab that important to-34 age gro The networks an these younger vi ers are simply l about punch their personal co into the Niel people met These are gizmos that whether a white year-old male c 20-year-old Hisp ic female is wat ing. So the netwo say more 18-to- year-olds are watching than Niel actually reports. Not so, says Nielse



ERICA FREUDENSTEIN

Nielsen Chief Executive John Dimling
The customer isn't always right.

Dimling is throwing the networ bone or two. He has promised a r service, called N Power, that will all customers to pay a flat fee to acc Nielsen's Dunedin, Fla. data wareho from their desktops. Dimling say will be available by the second quar

The Web is very much in Nielse future, too. Dimling just bough 25% stake in NetRatings, a Milpit Calif.-based company that has patented technology to measure effectiveness of ad banners.

Meanwhile, Dimling is hoping 10% earnings growth this year, to $ million on revenue of $444 milli That's growth his unhappy netwo customers can only wish for.

hen Samuel Bodman wants to stake out new territory
r Cabot Corp., he doesn't hire an investment banker.
e hires a chemistry professor.

The soot king

Bernard Condon

EALS, DEALS, DEALS. Merger-and-quisition brokers cooked up $1.6 llion worth of them in the U.S. t year. Not a one on behalf of bot Corp., the $1.6 billion (sales) manufacturer of carbon black and other industrial chemicals. Samuel Bodman, the 60-year-old ex-college professor who has been running Cabot since 1987, doesn't want to hear from investment bankers.

"The people selling know more about the business, and its problems, than the one who is buying," he explains. "So the buyer, in essence, is saying that he can run the business better. I simply don't believe we're smarter than a lot of people in this industry."

But he must be smart. How else could he have doubled Cabot's net profit margin, to 7.4%, over the past decade? Remember, this is not a software company. It's an old-line commodity producer.

To oversimplify a bit, Cabot is in the business of selling soot, sand

Cabot Corp.'s Samuel Bodman **Money for molecules, not mergers.**

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d mud. Doesn't sound like high hnology, but Bodman has been owing big money into research. bot's R&D spending now stands $83 million a year, or 31% of its tax, pre-R&D income.

What do the scientists get for ir efforts? Take a look at carbon ack—soot, that is—which has en Cabot's core product ever ce the company's founding in 82. This form of purified carbon added to rubber to make it ugher.

Two years ago, eight decades after rbon black was first added to bber, Cabot came out with new use of carbon black in bber that reduces leaks tires. Tiremakers including oodyear and Michelin are sting the product this year in me of their new models.

Cabot has also developed acker blacks with a new rbon-soot ink that goes to ink-jet printers. And it is ying to get manufacturers of plas-c dinnerware to use its carbon lack to strengthen their plates, rks and knives.

Cabot sells fumed silica—a pure ust-like form of silicon dioxide, the rincipal component of sand. odman hired Daniel Gilliland away om DuPont five years ago to add me spice to Cabot's fumed silica les. When Gilliland arrived, he was anded a 25-page report by a Cabot esearcher concluding that no new roducts could be developed from umed silica.

Gilliland thought not. There are ow 16 products that entered the narket last year or are about to enter his year, including an easier-flowing aint for car parts and an insulation naterial for stoves and refrigerators.

As for the mud business, there are nteresting prospects here, too. The nud we're talking about is drilling nud, the heavy fluid used to lubri-ate drill bits in oil wells and to carry away the rock waste.

British Petroleum is trying out a new Cabot chemical that, compared to traditional drilling mud, promises to cut by half the time it takes to drill a deep-sea oil well. Cabot's product does a better job of keeping the well from clogging up while being drilled. The fluid is made from cesium. Cabot, it turns out, owns 75% of the world's known supply of cesium, all from a mine in Manitoba, Canada bought for $3 million in 1992 before it realized this new use for the chemical.

Bodman is something of a Renaissance man. He started out teaching chemical engineering at MIT. Then he worked as a venture capitalist under the famed Georges Doriot and spent 17 years rising through the ranks at Fidelity Investments, eventually becoming president. But he seems to be an alchemist at heart, bent on hiring people to invent things.

Five years ago? A 25-page report from the labs stating that nothing could be developed from tired, old, fumed silica. Today? Sixteen new products, including high-profit paints and insulation.

"Publishing in obscure journals just doesn't do it anymore," says Dennis Dalton, who left his job last year as an assistant professor at Williams College to come work for Bodman on new carbon-black compounds. "People here want the satisfaction that comes from having come up with a commercial product. We want to be the next guy who invents 3M Post-its or [DuPont's] Teflon."

So far Cabot has no home run like Teflon, but it is producing some singles and doubles. Jeffrey R. Spetalnick is an independent analyst in New York who covered chemicals for nine years at CIBC Oppenheimer. He estimates that six major products introduced since 1995 will generate $260 million in revenues in 2000, 13% of Cabot's total.

That contribution will help Cabot to net $150 million, or $2.15 a share, in the fiscal year that ends Sept. 30 that year, he predicts. Within five years, says Spetalnick, these new products will bring in as much as $1.2 billion in annual sales.

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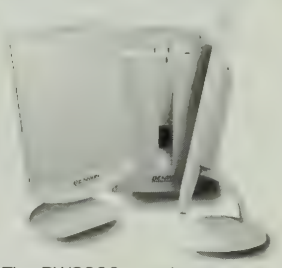

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There's money to be made exporting American retailing concepts. Real estate developer Joseph Kaempfer wants a piece.

The malling of Europe

By Howard Banks

HIS HEAD SWATHED in bandages from a nasty softball whack at a company picnic, real estate developer Joseph Kaempfer was sitting on his back porch in northern Virginia in the summer of 1992, nursing a headache of a different sort: His property business, developing office buildings in Washington, D.C., was going nowhere.

Thank heaven for distractions: Who should arrive to cheer him up but former boss and business partner Alan Glen, a developer of outlet malls. Glen stopped in to visit his friend but also to ask whether Kaempfer would be interested in starting with him a company to develop discount outlet malls in Europe. The business was to be headquartered in Britain.

Sold! Kaempfer, now 51, was a confirmed Anglophile, fond of driving two-seater British roadsters. But he saw more than just an opportunity to live in London while the Washington property market recovered. He knew that Europe hadn't yet embraced the idea of discount outlet malls and that a lot of U.S. companies like Nike, Levi Strauss & Co. and Calvin Klein were eager to jump in.

Once in Britain, his Washington business in the hands of a trusted assistant, Kaempfer wasted no time. First, he quickly inked a deal with the British Airports Authority—famous for signing up retailers at airports using leases tied to a percentage of store sales. Kaempfer and BAA each put $13 million in capital into BAA McArthurGlen; BAA lent another $50 million. Later Kaempfer bought Glen's one-eighth stake for $1.25 million and other investors' stakes for $6 million.

MICHAEL HIRT

Joe Kaempfer at a mall in Swindo

Big bargains for Brit shopper

"We're making Joe a rich young man," says BAA's Sir John Egan. Quips Joe: "I'd like to think that I had something to do with it."

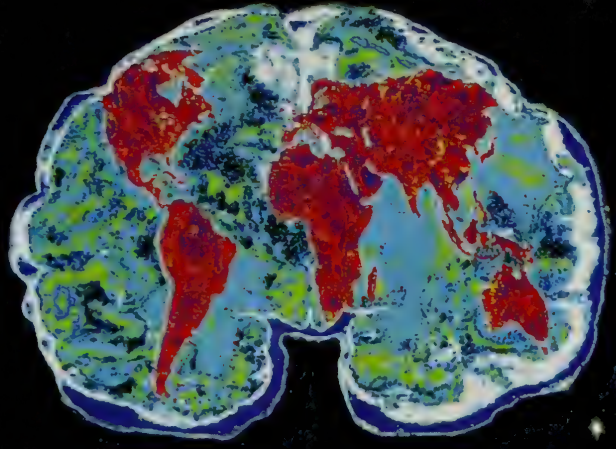
Within 16 months he opened the first of what are now five malls, each with up to 120 discount outlets—including Ralph Lauren, Disney, Armani, Nike and Gap—jammed with shoppers suddenly delighted to be paying 30% to 40% less than they would pay at Selfridges or Harrods.

The malls are now ringing up retail sales of over $500 million a year, which means lease payments to Kaempfer of $60 million year. BAA's chief executive, John Egan, who has since l almost $400 million to t venture, says: "We're maki Joe a rich young man." Qu Joe: "I'd like to think tha had something to do with i

What's next? Expansion, course. There is already o mall operating in France, a one in Austria, and Kaemp is building one more France, one in Italy and t in Britain. Others are plann for Spain, the Netherlan and Germany.

Once each mall is w established, the plan is to s majority stakes to internatio al financial institutions. T first such sale came l November at the Cheshi Oaks Mall, strategically located nea freeway between Chester, Manches and Liverpool in Britain's north Mi lands. A group including the Norwi Union insurance company boug 75% for $125 million. Kaempfer sa Cheshire Oaks cost $80 million build and that he used the sale pr ceeds to pay off a mortgage of $ million, with the rest available to p back into the business. The partn ship's 25% stake is now valued at $ million, and it also has a ten-ye management contract.

Nice business. No wond Kaempfer looks so relaxed in his n and expanded offices on Londo Portman Square. His Washingto D.C. office-building operation making money once again. And h getting more time these days to dri around in his new TVR roadster.



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Can't get your favorite charity to accept your commercial real estate as a donation? A new REIT based in Santa Fe might help out.

The office-park deduction

By William P. Barrett

H. Garrett Thornburg Jr. and John (Jay) Grab
Their first-of-its-kind plan turns donated real estate into securities.

ERIC O'CONNELL

An associate of H. Garrett Thornburg Jr., a Santa Fe, N.M. money manager, was visiting a charity last year when he overheard a telephone conversation. The head of the charity was turning down a donation of a large piece of real estate. The charity had no expertise managing property, the executive explained—not to mention tax liabilities, the mortgage and any number of possible surprises.

That conversation got Thornburg and his associate, John (Jay) Grab, thinking. The result: The first real estate investment trust that specializes in acquiring property from owners with a charitable intent. The givers get their tax deductions while their designated charities benefit without the hassle of direct ownership.

Although he has yet to close a deal, Thornburg, a former Bear Stearns limited partner, is already the talk of the fundraising world. Because charities usually want nothing to do with donations of shopping centers, office buildings and the like, real estate accounts for only 2% of roughly $140 billion in yearly charitable contributions. But there are many property owners out there who might give away some assets—particularly if the tax deduction is high.

With securities, it's easy to get a nice deduction. If you buy a share of Amazon.com at $10 and give it away when it's worth $100, you can get a $100 charitable deduction without ever paying capital gain tax on the $90. It's harder to pull this off when the donated asset is not stock but mortgaged real estate. The main problem is a tax rule penalizing charities with debt-financed property.

Thornburg seems to have solved that problem. His REIT, called American Foundation Realty, turns donated real estate into securities. A donor would transfer a debt-encumbered property to a limited partnership under Thornburg's REIT. Using cash raised by selling its shares or drawing on a line of credit, American Foundation would pay off the mortgage. The donor would get back partnership shares equaling fair market value of the property less paid-off debt.

Although it's not required, the donor then would be expected to give the partnership shares to a charity, avoiding most capital gains taxes on appreciation and also getting a current tax deduction.

Example: You own an apartment building with a fair market value of $4 million and a "basis" (adjusted cost for tax purposes) of $2 million. It's subject to a $1 million mortgage. You could get a $3 million charitable deduction without having to declare more than a small amount of your $2 million paper profit as a capital gain.

Donors could also put the partnership shares in a charitable remainder trust, a popular estate-planning device in which donors or their beneficiaries draw income for life, with trust assets going after death to charity. Internal Revenue Service rules bar such trusts from holding

When the employees of Capital One had some things to say about their unusual working conditions, they went straight to the authorities.

The authorities, that is, who publish a survey in *Fortune*® magazine. The ones who travel the country every year and compile the 100 best companies to work for in America. After talking to 27,000 employees nationwide — including many of ours — Capital One landed prominently at #41 on the list.

Were we honored? Who wouldn't be, alongside Intel, Starbucks, Nordstrom, Sun Microsystems and L.L. Bean. Actually, truth be known, we were ranked even higher than they were.

So what does it take to make this list, let alone the top half of it? A lot.

The survey considered pay, benefits, vacation, child-care and dress code. But they also measured things that only the people who work there can describe and quantify. Like trust in management. Pride in work. Job security. Openness of communication between management and workers at all levels. And, not to be underestimated, how much fun people have at work. We scored high on all counts.

At Capital One, our associates (the word we use instead of employees) come first. All full-time associates receive medical, vision and dental coverage starting the first day on the job. Not to mention, 10 paid holidays, 3 family care days and 3 weeks of vacation the very first year on the job.

We don't just help pay for child-care, we go out and find it for everyone who needs it. And of course, there is a great 401K plan and casual dress all week long. But the ways we respect our associates go beyond that.

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So what about this concept of fun in the workplace? Capital One managers have a quarterly "fun budget" for every person they manage, to make sure work and play stay in balance.

Does all this really translate into a great place to work? Looking at the numbers, 93% of the people who work for Capital One are happy with their benefits. 90% voted this a fun place to work. And 95% say they are proud to work here.

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donor's mortgaged assets.

The charity? It gets cash flow no ownership worries. If Thornb succeeds in taking the REIT pu within two years, the charity co convert its units and sell the sha

Thornburg expects to be offe lots of crappy stuff, so he'll be pi A property must have at l $500,000 of net value and a debt equity ratio below 50%. No raw l without immediate developm potential. A solid cash flow recor a must. But property with fixa environmental problems is possib

So who is Garrett Thornburg? C smart cookie. Now 52, he pionee a way of turning industrial devel ment bonds into tax-exempt mo market funds. He chucked New Y nearly two decades ago for N Mexico's ski slopes and laid-b

Thornburg's marketing pitch over other REITs: He's helping charities.

lifestyle. An art patron, he sits on s eral charity boards.

His Thornburg Management C runs portfolios and operates t mutual funds, with $2 billion in asse Its one REIT, Thornburg Mortga Asset, which buys up home mo gages, hasn't done so well, but th neither have most mortgage REITs.

The main risk in his charitable pl seems managerial. Thornburg wou be running an extremely diversifi REIT, with all kinds of properti everywhere, so he would have to hi a national firm to manage the pro erties. But Thornburg has a marke ing advantage over other REITs— can claim he's helping charities. Th do-good pitch could persuade donc to accept a haircut on value.

Thornburg has put up $1.1 milli of the $2.8 million in equity capit raised so far. Says he, "We want to good, but we're in this to ma money, too." Investors will p Thornburg and Grab 1% as an ove head and management fee, and th will be on top of any property ma agement fees it pays to local proper managers. ■

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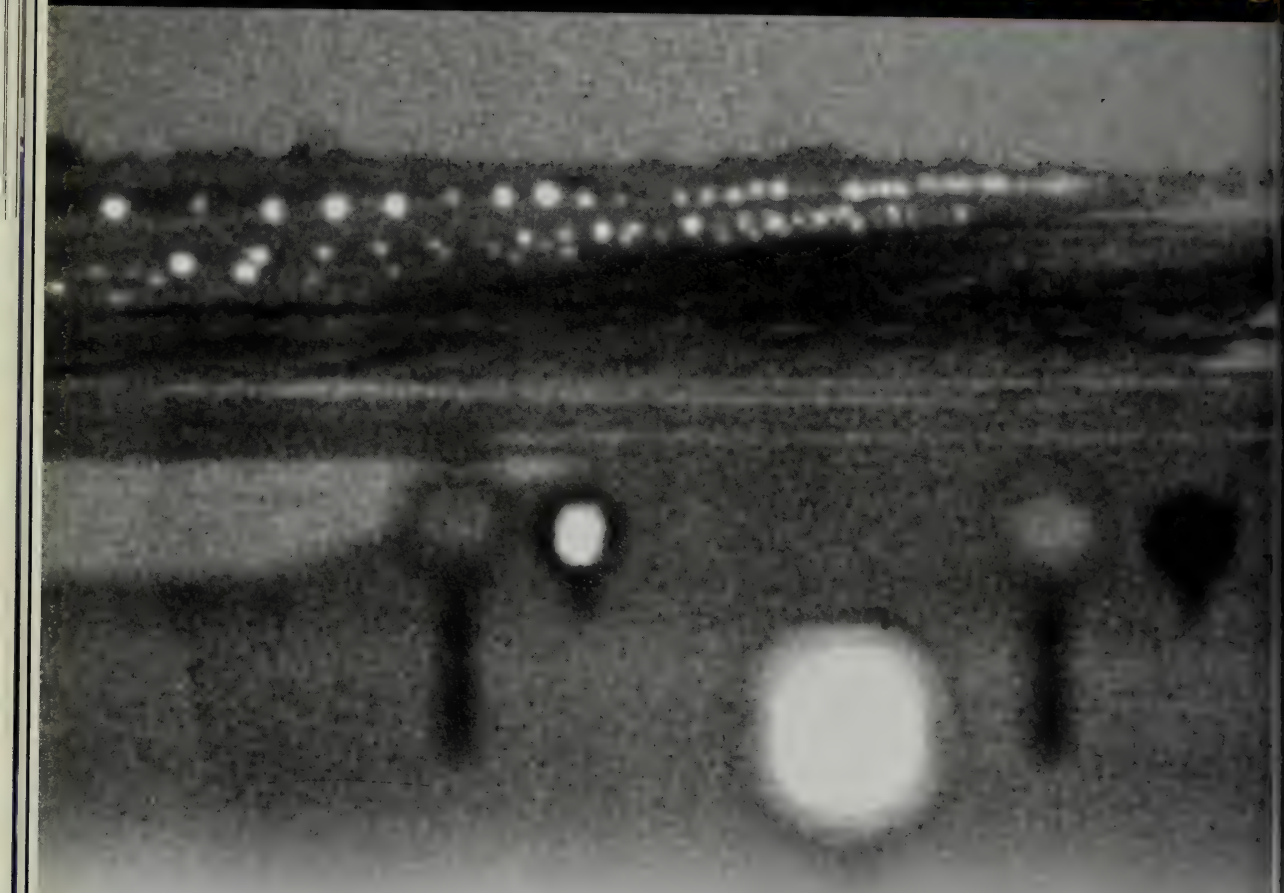

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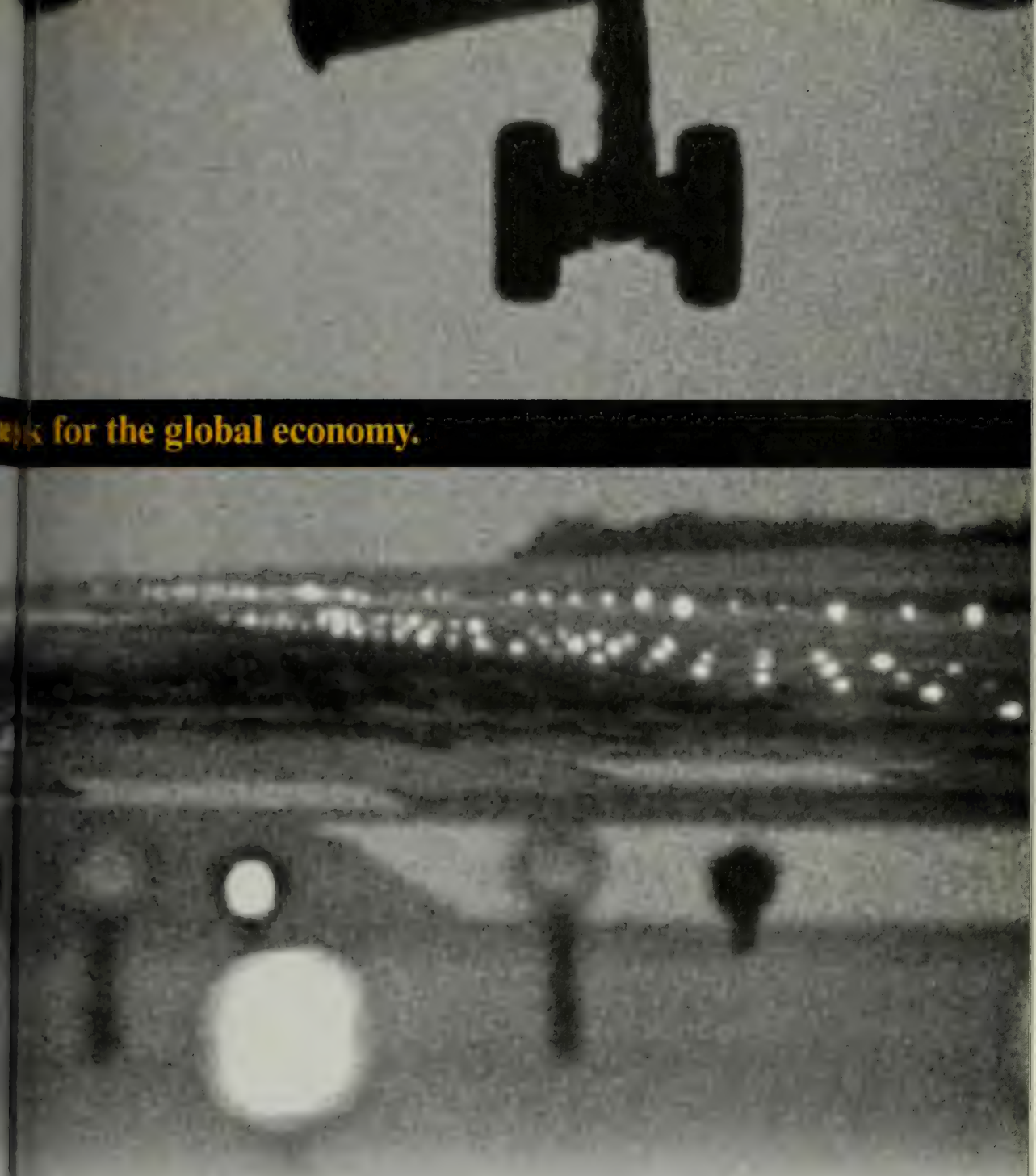

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Gore's crusaders

ROBERT DEMICHELL

By Pranay Gupte and Bonner R. Cohen

THE VICE PRESIDENCY, someone once said, is a spare tire on the automobile of government. (It was John Nance Garner—FDR's veep for the first two terms.) But in today's technologically complicated and heavily regulated society, a vice president can be very powerful indeed. He can have a large and lasting impact on the way you lead your life and the way you run your business.

Al Gore is obsessed with protecting the environment, and he has the means to put his beliefs into law. He has seeded such bodies as the Environmental Protection Agency, the Council on Environmental Quality and the Department of Energy with his friends, acolytes and ex-staffers; from those positions the Gore-ites hold sway over a large part of the federal regulatory apparatus. And in the environmental arena the regulatory apparatus cuts a wide swath. The EPA alone expects to issue 462 of the 4,560 planned rules that will eventually find their way to the Code of Federal Regulations.

In the environmental sector Congress has, in effect, ceded lawmaking power to the executive branch. It had to. There is simply no way that legislators could themselves run the experiments and make the scientific judgments that determine the details of pollution control or energy c servation. And how is Vice Presi Gore on science—the science global warming or resource sca or hazardous chemicals?

"The things Gore believes ar supported by facts," says Will Happer, a Princeton University ph professor who worked at the dep ment of energy from 1991 to 19 "He is surrounded by like-min people, and they all want to save world. That's a recipe for disaster."

Gore gave America an alarmi revealing peek at his environme extremism in his 1992 bestsel *Earth in the Balance*, a bleak tome our "dysfunctional" society that devoid of any recognition of potential of science and technol to improve lives.

Reared on national politics and son of a U.S. senator, Gore has p sued his agenda as the most powe vice president in modern history. C ton delegated to him much of the that will define our future: the en ronment, energy, technology, infor tion systems, housing. He is Clinto main conduit to the social and e nomic development programs of United Nations, covering such issue climate change and population cont

The regulatory efforts of the v president's loyalists are taking hc One irksome example: The Depa ment of Energy, a backwater bri ming with Gore lieutenants, is s ously considering dictating that domestic washing machines be fr loading rather than top loadi Front loaders use less hot wate never mind that they also requ smaller loads, or that America's wh goods aren't exactly draining t national power supply.

New standards for ovens, wa heaters, fluorescent lamps and conditioners are in the works at DC Who's energy secretary? It is Willi Richardson, previously U.S. amb sador to the U.N. and, before that congressman from New Mexico.

Gore's kitchen cabinet on enviro mental issues also includes Carol Browner, whom he persuaded Pre dent Clinton to name head of t EPA, and Gore's former Senate staf Kathleen McGinty, who recen resigned as director of the Whi

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Gore's kitchen cabinet

AP/ WIDE WORLD

◀ Bruce Babbitt
Interior Secretary, ex-governor of Arizona; as president of League of Conservation Voters, he said: "We must identify our enemies and drive them into oblivion."

RICHARD BLOOM/ SABA

◀ Jonathan Lash
Headed Vermont Commission of Environmental Conservation; now runs World Resources Institute, a Gore-ish think tank in Washington, D.C.

RICHARD BLOOM/ SABA

◀ Kathleen McGi
Ex-director of White House Council on Environmental Quality. Is expected to play a major role in Gore's run.

Bill Richardson ▶
Secretary of Energy; former U.S. permanent representative to United Nations. Going after top-loading washing machines.

AP/ WIDE WORLD

Maurice F. Strong ▶
Canadian businessman and secretary-general of the 1992 United Nations Earth Summit. Also chairman of Costa Rica-based Earth Council, an activist group.

AP/ WIDE WORLD

Timothy E. Wirth ▶
Former Colorado senator, ex-undersecretary of state for global affairs; now president of Ted Turner's United Nations Foundation.

TERRY ASHE/ GAMMA LIAISON

House Council on Environmental Quality, but is likely to play a major role in Gore's run for president.

Another ally, Jonathan Lash, former attorney general of Vermont, is now president of the World Resources Institute, the Administration's favorite eco think tank. Maurice F. Strong, a millionaire Canadian businessman and former secretary-general of the 1992 United Nations Earth Summit, is Gore's link to nongovernmental organizations. Also close to Gore are Time Warner honcho Ted Turner and former Senator Timothy E. Wirth (D–Colo.), who now heads a Washington-based foundation that Turner set up to fund U.N. projects.

Do these eco-advisers have an antibusiness bias? Seems that way. Last June a renegade group of more than a dozen EPA employees, most of them scientists, published a letter in the *Washington Times* harshly criticizing their own shop. They alleged that EPA employees "are harassed, even fired, for protesting illegal or irresponsible behavior by managers."

They argued that agency moves are based on "poor science" and that staffers who said as much were harassed. The letter-writers were responding to revelations contained in a report by the National Wilderness Institute showing the EPA ignored whistle-blower warnings about fabrication of agency documents in a Wisconsin wetlands case, and that it had used public funds to bankroll a puppet foundation to win control of Chesapeake Bay restoration.

The EPA pursues drastic policy even when sibling agencies vehemently disagree. In July 1997 the EPA put out tougher standards on air pollution. The rules on particulate matter and ground-level ozone ignored the findings of the EPA's Clean Air Scientific Advisory Committee, which found no proof that the new standards would measurably improve public health. But the standards will be costly—a burden of perhaps $100 billion a year over and above previous standards, a burden that will be paid in some way by consumers, businesses or taxpayers.

What's going on? You have to understand pollution control in the context of the battle over global warming. The new rules force some counties to further reduce levels of ozone and particulate matter or lose federal transportation funds. The man-made sources of these pollutants—cars, trucks, manufacturing plants and electric utilities—are in large part the same sources of man-made "greenhouse gases."

And that's the point. Those gases are the target of the Kyoto Protocol, which puts most of the burden for reducing gas emissions on the U.S. It effectively requires a 30% reduction in emissions over the next decade—while imposing no restrictions on China, India, Mexico and other developing nations. The Kyoto treaty is one that the U.S. Senate would probably reject, but that pr- lem is not stopping Gore & Co. fr moving full speed ahead. "The goa all this," says Malcolm Wallop, ch man of advocacy group Frontier Freedom, "is to phase out coal a reduce use of fossil fuels, thereby s nificantly altering U.S. energy polic

With his influence over federal pu strings, the Vice President has ma sure that environmental lobby g groups receive plenty of taxpayer fun James Sheehan, a research associate Washington's Competitive Enterpr Institute, says organizations back the Kyoto treaty tend to win fede research grants, while dissenters do

Last year the Global Environme Facility, a World Bank-related pr gram that supports the global-war ing treaty, began passing out $1 million in U.S. funding to ea recipients; to date, $43 million o has been committed to implementi the treaty. Among the environmen groups that have already receiv such funds are Greenpeace, t World Wildlife Fund and Jonath Lash's World Resources Institute— fervent Gore supporters.

You might think that the ideas *Earth in the Balance* are kooky. Re the book anyway. You may have live with its philosophy.

Pranay Gupte is editor and publisher of *The Ear Times*. Bonner R. Cohen is a senior fellow at the Arlington, Va.-based Lexington Institute and edit of *EPA Watch*.

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By Steve H. Hanke

We're all Keynesians—still?

Led by Treasury Secretary Robert Rubin and his deputy, Lawrence Summers, the Keynesians have escaped from their cages.

YOU WOULD THINK that the economic booms brought on by Margaret Thatcher and Ronald Reagan would have killed Keynesianism. They abandoned fiscal fine-tuning in favor of smaller government, less regulation and flatter taxes, and for their efforts they got economic booms.

And yet Keynesianism is not dead. It lives on in the moribund economy of Japan and the bankrupt policies our Treasury Department is foisting on Japan.

Like it or not, John Maynard Keynes will go down as one of the 20th century's most powerful economists. His 1936 classic, *The General Theory of Employment, Interest and Money,* popularized fiscal fine-tuning—the notion that more government spending, less taxing or some combination of the two will cause an economy to accelerate by a multiple of the stimulus. And that a fiscal contraction will slow things down. A touch on the fiscal tiller is supposedly all that is needed to adjust demand so that it just matches an economy's capacity to produce.

It was a neat theory, and it captivated two generations of economists, especially those who rather liked the idea of a strong central government. Even Richard Nixon, who claimed not to be a fan of big government, was moved to say, "We are all Keynesians now."

And then Margaret Thatcher came along. In 1981, when she was prime minister, Britain's fiscal deficit was relatively large, 5.6% of gross domestic product, and the economy was in the middle of a nasty slump. To restart the economy, Thatcher instituted a fierce fiscal squeeze, coupled with an expansionary monetary policy. This was immediately condemned by 364 dyed-in-the-wool Keynesian economists. In a letter to the *Times* of London, they wrote, "Present policies will deepen the depression, erode the industrial base of our economy and threaten its social and political stability."

Thatcher was quickly vindicated. No sooner had the 364 affixed their signatures than the economy turned around and boomed for the next five years. That result provoked disbelief among the Keynesians. After all, according to their dogma, the relationship between the direction of a fiscal impulse and economic activity is supposed to be positive, not negative.

As it turns out, the correlation between fiscal impulse and economic activity can be either positive or negative, depending on the state of confidence in a government's policies. There is a world of difference between increasing a deficit from 8% to 12% of GDP and going from a surplus of 2 to a deficit of 2%.

In the first instance, pump-priming would destroy confidence and be judged foolhardy, a precursor of financial crises and of increases in taxes, inflation and interest rates. Consequently, the stimulus would cause the economy to slump. On the other hand, the latter scenario would be regarded as quite consistent with a stable long-run financial policy. Confidence would remain upbeat, and a fiscal expansion would cause the economy to accelerate.

This brings us to Japan and the current state of the world economy. According to the International Monetary Fund, world growth will be 2.2% in 1999, half the 1999 rate the IMF projected a year ago. The IMF also cautions, in its *World Economic Outlook* of December 1998, that if Japan, the world's second-largest economy, doesn't arrest its economic slide, more downward revisions in world growth will be forthcoming.

Just what are the prospects for Japan? Led by Treasury Secretary Robert Rubin and his deputy, Lawrence Summers, the Keynesians have escaped from their cages. And, unfortunately, the Japanese authorities have listened to them. This year, Japan's yawning fiscal deficit will increase from 7% of GDP to over 10%.

Not surprisingly, the Japanese people fail to perceive this as a credible policy, and confidence is taking a nosedive. Since October 1998, prices of Japanese government bonds have plunged and yields on ten-year bonds have almost tripled, pushing real interest rates to punishingly high levels. Contrary to the Keynesians' claims, this fiscal stimulus package will meet the same fate as other recent packages. It will further exacerbate Japan's economic problems.

Ready yourselves for more downward revisions in world economic growth. ■

Steve H. Hanke is a professor of Applied Economics at The Johns Hopkins University in Baltimore.

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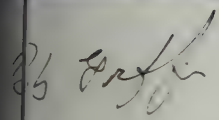

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Edited by Tom Post

▶ up & COMERS

Two guys thought they could turn rattan bags into riches. Good thing they stumbled, since their second try was a real winner.

Glad Saks

By Robert La Franco

Like a lot of raw entrepreneurs, Todd Elliott and Mark Talucci mistook a fad for a business—and nearly followed it off a cliff.

The fad in question: rattan handbags. Elliott's sister had brought one back from a trip to Asia in 1989, creating a sensation among her friends. Elliott was so sure he'd found the way to the money that he pooled his life's savings and Talucci's—$20,000—and lit out for Bali, Indonesia. A gut-grasping drive through sweltering streets brought Elliott to a shack busy with seamstresses hand-stitching rattan bags. With the help of a chicken peddler who spoke minimal English, and some crude sketches of handbags, Elliott placed a 1,000-bag order. For the next six weeks he visited the factory daily to oversee production, while Talucci waited in San Francisco.

The first order of rattan bags sold out in months, mostly through New Age boutiques in northern California. In the first two years Elliott and Talucci did $500,000 in sales and started to branch out nationally. What they failed to note in the rush of success, though, was that their product was running out of gas.

The passion for rattan wasn't turning into a fashion. It was hard to color the stuff without making it look cheap. And because of its formless nature, it required a lot of additional, expensive processing: Leather strips had to be dyed, washed and cut to fit the bottom of the bags; cardboard had to be sewn into the sides; rubber and plastic tubing were needed to stiffen the handles. Affordable, large-scale production wasn't within reach.

By 1994 sales had stalled at $1.6 million; the gross margin shrank from 50% to 40%. Desperate, Talucci opened three retail stores in the Bay Area while Elliott went around Bali buying anything Indonesian to stock the shelves.

One day late in 1994 the pair sat down for a grim sink-or-swim discussion. They could liquidate the stores, pay off their debts and pack it in—or try to get rich by getting it right. Talucci had seen some embroidery work he admired by an obscure Italian designer. Maybe her style could lead them to an entirely new handbag. In the following weeks they designed a loose, nylon weave that could be sewn easily by hand and dyed any color.

"We wanted bags that would sell like clothes," says Talucci. "That way you would want to buy ten of them." And so was born the Sak.

Retailers liked the initial run of bags, priced at $35 to $80. But Talucci shoved them into a closet. No more premature launches. This would take some planning. The Sak needed a memorable look, defined by the image of free and easy living. A photographer took black-and-white pictures of a woman friend—naked, draped only with one of the new bags. They bought a one-page ad in *Accessories*, a fashion trade magazine, and ran j the picture without any type.

The whiff of naughtiness crea just the right draw. First full-year s were $6 million in 1995, more t doubling in the next year. Elliott a

▶ startup clinic/ GROWING PAINS

Lost in cyberspace

"Where can I get the best small-business information on-line?" asks reader John Schneiter, president of Troy, N.Y.-based GlobalSpec.com, which provides searchable engineering catalogs—listing thousands of technical products—on the Net. Tough question, since there are more than 1,000 Web sites designed expressly for entrepreneurs. We visited dozens and came up with the following—all free, except the last.

Entreworld

(www.entreworld.org). Strengths: No ads, thanks to a grant from the Kauffman Center for Entrepreneurial Leadership. Click through to a list of topics and choose one—public relations, pricing, franchising—and the search engine scans more than 800 sites for preexisting articles screened for content, offering summaries of each. Entreworld creates its own content, too, including a series by successful entrepreneurs on different topics each month (January: Y2K; December: angel investing). Weaknesses: Since there's no question-and-answer forum, you can't pose problems particular to your own business; you can e-mail authors of Entreworld articles—but there's no guarantee they'll answer.

Small Business Administration

(www.sba.gov). Strengths: Good basic information about starting, financing and expanding a business. Includes links to state hom pages and federal agencie referrals to local SBA chap ters and affiliates; info on SBA loans and assistance programs. Two interactive features: ACE-Net matches investors and entrepreneur PRO-Net connects you to small business services. Local SBA chapter chat rooms in testing stage. We nesses: Site's basic info m be too elementary if you're past the startup phase; als can be difficult to navigate.

MICHAEL J.N. BOWLES

ag men: Elliott and Talucci finally learned how to turn a passion into a fashion.

alucci, both now 34, reinvested host of their profits in advertising. Magazines, bus stops, taxicabs—anylace they thought women might see he "Sak Lady" icon was fair game. Orders poured in from the likes of Macy's, Nordstrom and Dillard's. Last year the Sak, as the company is now called, earned $7 million pretax on revenue of $40 million. Elliott and Talucci opened their first San Francisco boutique last year and plan another, in Manhattan's Soho, this spring. They envision that sales could grow at a 50% clip for several years.

That's not the end of the story, however.

Discipline has bred success—and with that the temptation to cater to the fashion experts. Talucci and Elliott aren't having any part of it, though they are keenly aware of shifting tastes. They've turned a deaf ear to the fashion editors who grumble about the Sak's overdone, easily knocked-off textures. They recently canned their ad agency for pushing them into territory so avant-garde it confused people—images of women clothed in rose thorns or banana leaves. "It's easy to lose focus; we learned that already," says Talucci. "We could use more experience, but we won't sacrifice attitude for it."

They've garnered enough experience to trust their own impulses—idiosyncratic as they may appear. Their head of design is a 27-year-old former racetrack cashier whose flair for fashion emerged while he was heaving boxes for their basement startup. The new marketing honcho once ran a photo studio in a shopping mall. And they've entrusted Talucci's brother with a new home furnishings division—essentially two people.

As for that Indonesian chicken peddler? He now runs a factory of 100 workers, churning out Sak products in nylon, beads and leather. ■

Microsoft Small Business

www.microsoft.com/smallbiz). Strengths: Solid how-to tech information—creating Web sites, finding the right tech consultant. Useful stories on issues like e-commerce and workplace productivity. Weakness: Most stories lead to Microsoft products—and how you can buy them.

American Express

(www.americanexpress.com/smallbusiness). Strengths: Easy-to-navigate site offers timely small-business news, advice on topics ranging from financing to firing and a lesson in creating a business plan. Easy to hook up with experts whose credentials are prominently displayed. Lets you pose questions to them and actually receive replies.

Also gives you access to previously asked questions (recent example: How can I better remember people's names while networking?).

Weakness: Too many distracting ads for AmexCo services.

Ernie

(www.ernie.ey.com). Strengths: Ernst & Young LLP's Web-based consulting service, Ernie, lets you e-mail questions that are then routed to appropriate experts for reply in two business days. You can easily tap into Ernie's growing database of previously asked questions (generalized to remove any specific details), as well as to a trend-watching page that posts most commonly asked questions (and Ernst & Young answers) by industry segment. Weakness: Not cheap. For $3,500, you get to ask ten questions per year; $18,000 will get you 12-months' worth of unlimited access.

–Leigh Gallagher

If you have a problem—in finance, marketing, sales or strategic planning—with your startup business, you can reach us on-line by clicking on the forum icon in our Small Business Center in the Forbes Digital Tool at www.forbes.com/growing; or e-mail us at growing@forbes.com.

ANN STATES/ SABA

One hell of a moving experience: Payton and Solis exploited a crisis to galvanize a startup.

▶ up & COMERS

The ink was barely dry on the last deal that would put Roger Payton's freight startup on the map. Then a big customer threatened to bolt—and all hell broke loose.

RUSH

By Joanne Gordon

Roger Payton was having a tough enough time trying to assemble an international transportation company. It had been only a month since he acquired the last of four regional shipping outfits, LEP International. Now LEP's largest customer was threatening to take its $25 million a year in business elsewhere.

The client, Western Digital Corp., manufactured hard disk drives in Asia and shipped them to customers like Dell Computer, Compaq and Siemens. Deliveries were chronically late because Western relied on two different shippers—LEP and rival Air Express International (AEI)—whose operations were never in sync. The way to clean up the mess, decided John Porcelli, Western's vice president of corporate services, was to make only one carrier responsible for products from the minute they left the factory until they reached the customer.

The business w
go out for bid.
posals were due
9, 1998.

It was late Nov
ber 1997. Hardly
way Payton, a
year-old Scot wh
spent more than
his life working
U.K.-based Natio
Freight Consorti
had hoped to start
as an entrepren
He wanted gl
reach for his Gold
Colo.-based comp
"To have lost W
ern—everyone wo
have questioned
approach. It wo
have been a seri
blow," he says.
to mention
shock to investo
who contributed m
of the $70 milli
raised to start a co
pany that didn't
have a name.

Payton put
Western matter in
hands of Luis Solis,
40-year-old marketing vice preside
A Dec. 20, 1997 letter from Porcell
inviting 11 large shipping firms to b
for Western's entire $50-million-p
account—had the effect of conce
trating Solis' attention. So much
the Christmas holiday. Solis su
moned managers from LEP's offices
Los Angeles, Amsterdam and Sing
pore for an emergency meeting in S
Francisco on Dec. 30, 1997.

The mood was grim. "For the fi
hour the room was so quiet it w
like being called into the principa
office," says Solis. He spread o
world maps and said: Forget t
past; we're reinventing deliver
Everyone chimed in with sugge
tions, pinpointing strengths a
weaknesses. LEP had strong relatio
ships with regional airlines a
trucking companies, but the regio
al offices were fragmented a
office-to-office communicatio
were outdated. Only senior exec
tives at LEP had e-mail. Worst of a
customers couldn't go onto t

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Internet to find where their packages were at any given moment. UPS and others already had that capability.

Back in Golden, Solis had two months to come up with a plan. He had to convince Western that Payton's new company was not just the same fragmented LEP with a new logo, but a coordinated, responsive global operation.

First, some internal changes. Employees were equipped with PCs and global e-mail. More engineers were hired to connect LEP's large database to the Internet and to design an easy-to-use Web site that would let customers locate their freight. Then some external decisions. Solis unveiled the company's new name—GeoLogistics Corp.—and had fleets of trucks painted a signature red. He transferred global account leadership from Singapore to Colorado. That job went to Solis' newest recruit, Michael Jones. Though only 30, Jones had been the head of IBM's hard-drive logistics business and knew how to run a global shipping operation.

Jones' biggest challenge was to bring uniformity in procedure and rule to GeoLogistics' independent-minded offices in 84 countries. The Amsterdam operation, for example, had to get rid of its canvas-sided trucks in favor of aluminum ones—never mind that the crime rate was worse in the U.S. than in Holland. Jones also tied employee pay to accurate data entry.

Solis realized his team needed to see Western's operations in action. He spent $30,000 to send them to Singapore for a week, where all Western's shipments originated, having them tour factories and talk to Western's employees and managers about their jobs. "If we hadn't met as a group, the proposal would have been a cut-and-paste job," says LEP's Los Angeles manager, Richard Arndt.

The final proposal was a mix of new travel routes and warehouse management. To meet Western's tight delivery deadlines, GeoLogistics added stopovers in Dublin and London. In the U.S., where all crates used to go through the Los Angeles airport, traffic aimed east of the Mississippi landed in Chicago, slicing travel times by a day. Because Western now asked each vendor to run its own warehouse, GeoLogistics agreed to buy special equipment—storage racks, scales and forklifts.

A new, Internet-based software program linked order and entry systems in the warehouses with transporta systems. Now Western and its c tomers could go to GeoLogistics' key in a seven-digit reference num for any shipment and find out imr diately what time a plane left the port, when it was expected to l and/or did arrive. The site was upc ed every time a shipment moved.

Finally, D (for delivery) day. Mar. 9, 1998 GeoLogistics ha delivered 15 copies of its propo Within two weeks Porcelli, Weste vice president, narrowed the race four companies—GeoLogistics, Ex ditors, UPS and AEI—and invited back to make their presentations o half a day. The GeoLogistics te showed up in matching white p shirts with the new red company lo

Porcelli was leaning toward Ge Logistics. Its worldwide operatio seemed better meshed than Expe tors', and its costs were about h those of UPS. In fact, GeoLogistics' came in at $12 million less than AEI'

The lowball price seemed too go to be true. And it was: A gargantu error had been made. After some fra tic digging, it turned out Weste accountant had mistaken GeoLog tics' cheaper three-day delivery rat out of Asia for its two-day rate. Sa Porcelli, "I could have been a real je and said, 'Hey guys, this is it,'" a handed the account to AEI. But Ge Logistics' persistence and responsiv ness won Porcelli over.

Eight months into the relationshi Western's average delivery time fro Singapore has been cut from eight five days. Things aren't perfect: Thir percent of shipments to Amsterda still arrive behind schedule; and some Asian airline hubs, freight is si ting around for a day or two. B Porcelli is not complaining. "O people no longer have to go to thr or four different places to get info mation. It's one phone call," he say

GeoLogistics earned third-quart operating profit of $11.9 million o third-quarter revenues of $1.1 billio in 1998. Solis credits the scramble t win the Western account with spee ing up consolidation and Web si development. In four months his fir accomplished what he expecte would take a year.

A crisis can be a good thing. ■

TED SOQUI

On very red alert: GeoLogistics is trying mightily to cut delivery times.

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RELENTLESS PURSUIT OF PERFECTION. LEXUS

The oil business is just like the cookie business, right? Depends on how you defin the oil business. Look at how James Postl is defining it at Pennzoil-Quaker State.

Oreos and lube jobs

By Daniel Fisher

ROCKY KNETEN

Pennzoil-Quaker State's James Postl sees hidden value in the company's brands.

As president of Nabisco, Inc.'s largest division in the mid-1990s, James Postl increased Oreo sales to $500 million from $350 million within two years, boosting annual profits from that line by 50%, to $105 million.

"The consumer franchise was much stronger than the business that had been built," recalls Postl, 52, a trim, boyish-looking Manitoba, Canada native who cut his teeth on brand marketing at Procter & Gamble and PepsiCo.

Postl sees a similar opportunity at Pennzoil-Quaker State Co., the $3.1 billion (sales) Houston-based automotive products company he joined as president last fall under longtime Pennzoil chairman James Pate.

He takes over the consumer products portion of what used to be Pennzoil Co. In December Pennzoil's exploration and refining operations became a separate publicly traded company called PennzEnergy, with $1 billion in sales.

Cookies and motor oil don't appear to have much in common, but remember that both are low-growth industries with basically interchangeable products, where strong brand names are key. And Pennzoil-Quaker State, like Nabisco, has two of the best-known brands in the business.

Those two brands account for 37% of the retail market and 60% of the oil used in quick-change centers. Postl's company also owns the biggest those chains, Jiffy Lube, which expand to more than 2,000 U.S. c lets after Quaker State's Q Lu chain is folded into it later this ye

All that market power should g Postl leverage with retailers like W Mart, one of Pennzoil-Quaker Stat biggest customers, when he wants squeeze smaller brands off the shel to make more room for Pennzoil a Quaker State.

Retailers like the profit marg they can earn from higher-pric brands supported by national adv tising campaigns. Pennzoil's price in the neighborhood of $1.37 quart, for example, compared w budget brands at 99 cents.

Postl can hardly do worse than t previous Pennzoil managemen which squandered a $3 billion leg settlement from Texaco Inc. in t late 1980s on a variety of low-retu investments and inexplicably reje ed an $84-a-share takeover off from Union Pacific Resources Gro in 1997.

The stock (counting the value the PennzEnergy shares) is nc worth only $31.

But Postl faces some big probler with the motor-oil industry he didn have in the cookie business. Drive are traveling farther between c changes, and engines don't burn the way they used to.

Jiffy Lube puts a sticker on yo windshield telling you to come ba after 3,000 miles. But how muc weight will that carry in one of th new General Motors cars who dashboard indicator urges oil chang as far apart as 15,000 miles?

Postl figures he can wring 2% to 3 annual growth out of the busine simply by increasing advertising an exploiting the company's relationshi with retailers and fast-lube chains.

That isn't enough to generate th

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Prestige Class
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Morning Calm Class
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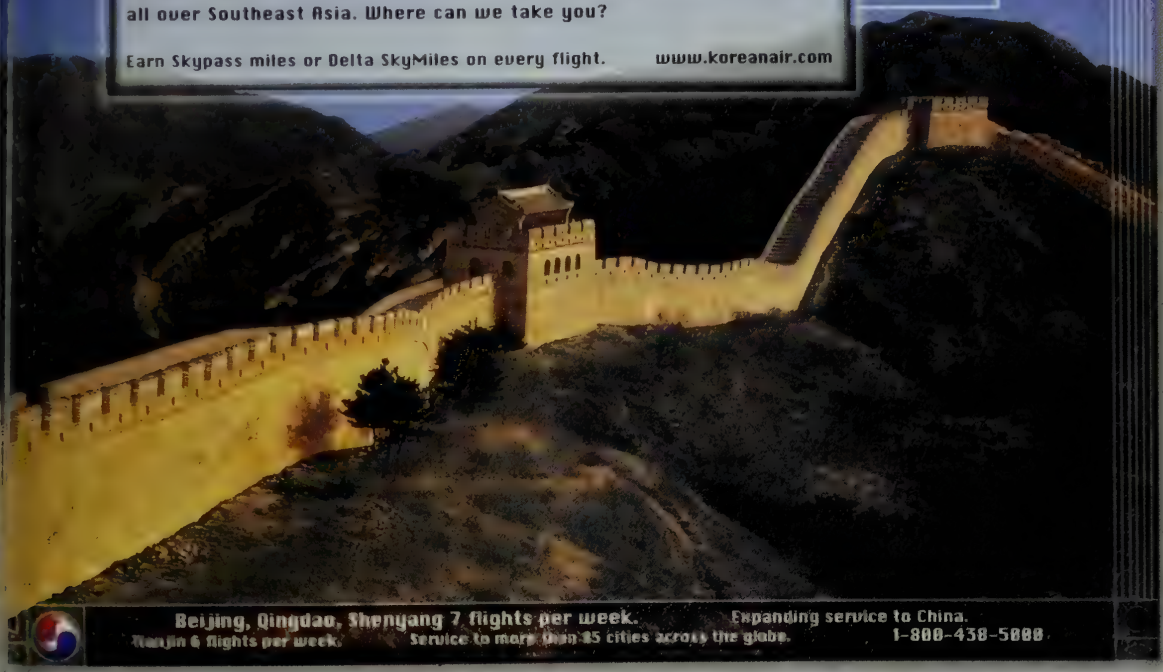

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double-digit earnings growth of a Procter & Gamble or a Clorox Co., but there are other tools within Postl's reach.

He vows to cut $90 million to $125 million a year in operating expenses by eliminating Quaker State's Dallas headquarters and closing duplicate blending plants and distribution centers.

Postl is also looking at selling the company's Shreveport, La. refinery and some of the 1,180 company-owned oil-change centers.

That would free up money to invest in related automotive-care businesses, which are growing at 15% to 20% a year. It's a strategy pioneered by Quaker State's former chairman, Herbert Baum *(see* FORBES, *Sept. 23, 1996)*, with mixed results.

In a flurry of acquisitions Baum spent $375 million to buy brands like Blue Coral car-wash products and Slick 50 motor-oil additive. Yet Quaker State's operating profit from consumer products fell 12%, to $32 million, in the first nine months of 1998, as sales stalled and the company's Slick 50 brand was forced to tone down its advertising to settle a Federal Trade Commission complaint.

Postl says he's pleased with more recent acquisitions such as Axius, which is bringing out a constant stream of new automotive products including sunshades, organizer baskets and steering-wheel covers. "These companies are light on their feet, they're entrepreneurial and they generate great growth."

Postl plans to double sales of car-care products, to roughly $1 billion over the next five years, through acquisitions and extensions of the Pennzoil brand.

That just might deliver the kind of double-digit earnings growth that a consumer brands executive is accustomed to. And it just might get the company's price/earnings ratio up from its below-market level of 20.

In a December memo to analysts, Pennzoil-Quaker State warned that 1999 will be a "transition year," with 2% revenue growth and a 5.7% pretax, preinterest margin, barely changed from 1998.

But we're betting the cookie man can do better in 2000. ■

To Alltel, the key to "bundling" is in cellular.

Sell a phone, get a bike

By Christopher Palmeri

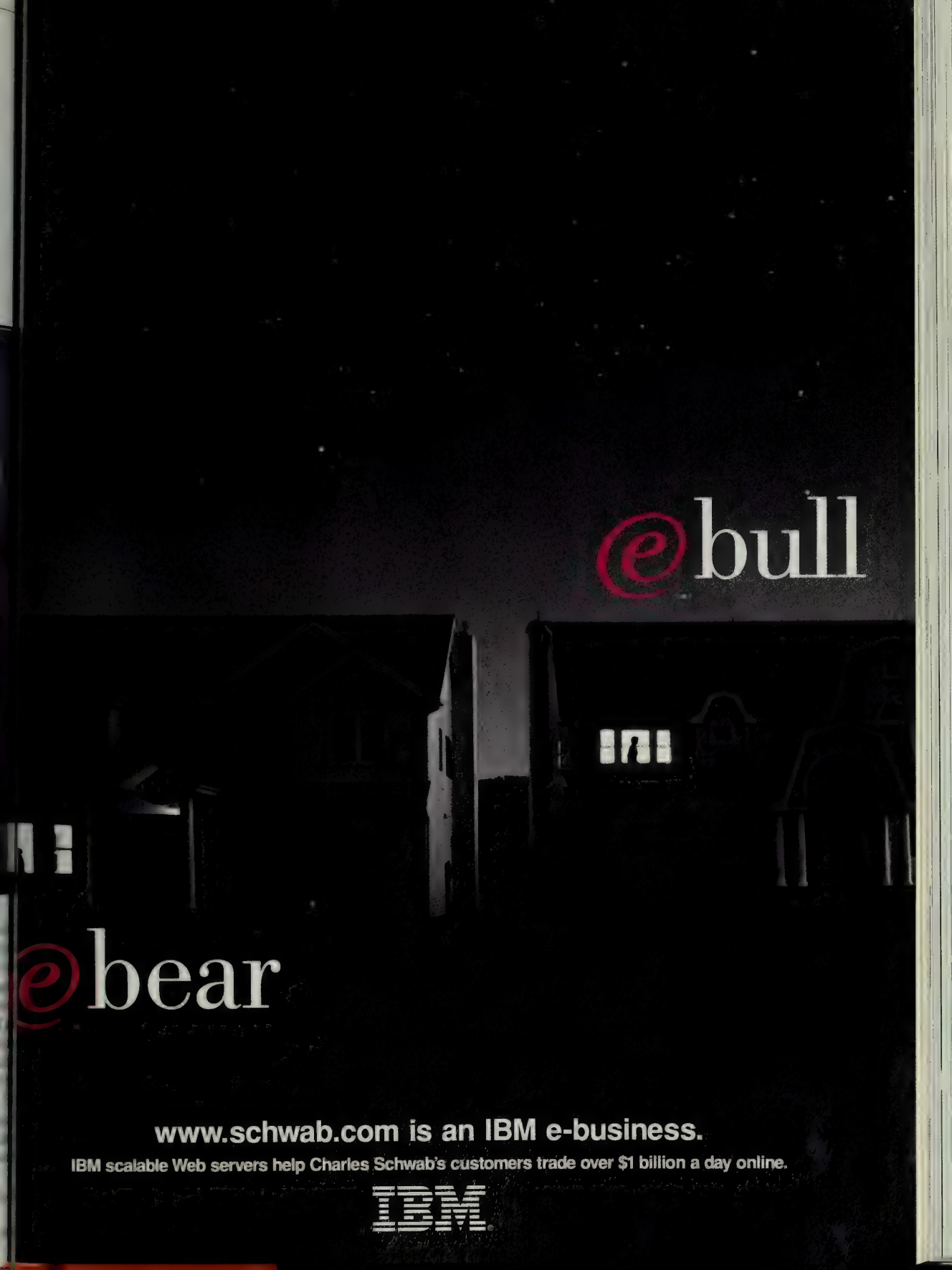
Alltel's Scott and Joe T. Ford have spent $8 billion on wireless phone licenses as a way of reaching business customers.

AT&T, MCI WORLDCOM and Bell Atlantic all talk about one-stop shopping for long distance, local, wireless and other telecom services. But talk is cheap. Local provider Alltel Corp. is one of the few phone companies doing a lot with the idea of bundling.

Once a sleepy Little Rock, Ark.-based operator of rural telephone exchanges and data-processing services for banks, $5 billion (sales) Alltel now has 6 million customers, mostly in small, southeastern cities like Norfolk, Va. and Greensboro, N.C.

Unlike its much bigger competitors, Alltel's strategy is to acqui regional cellular properties and pit those customers products like loc service, high-speed data lines, pagi and Internet access. Alltel's bosse the father-and-son team of Joe T. a Scott T. Ford, are doing this at a tin when national operators like AT& and Sprint are seizing most of t growth in the wireless industry. T Fords think they can get mo mileage out of their marketing dolla by cross-selling from wireless to wir services.

In the last year the Fords ha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spent $8 billion, in stock and assur debt, acquiring cellular propert They merged with Sprint's former lular operation 360 Communicati Co. last summer and recer announced a merger with Nebrasl Aliant Communications.

It seems to be working. In Lit Rock the Fords claim to h snagged, from SBC Communicatio phone customers representing o quarter of all the business lines the city. This is after less than c year of offering local service. "I lik the idea of dealing with one pers locally," says Scott Kingsboroug chief operating officer of Lit Rock's Clear Mountain Spring Wa Co. Kingsborough recently sign

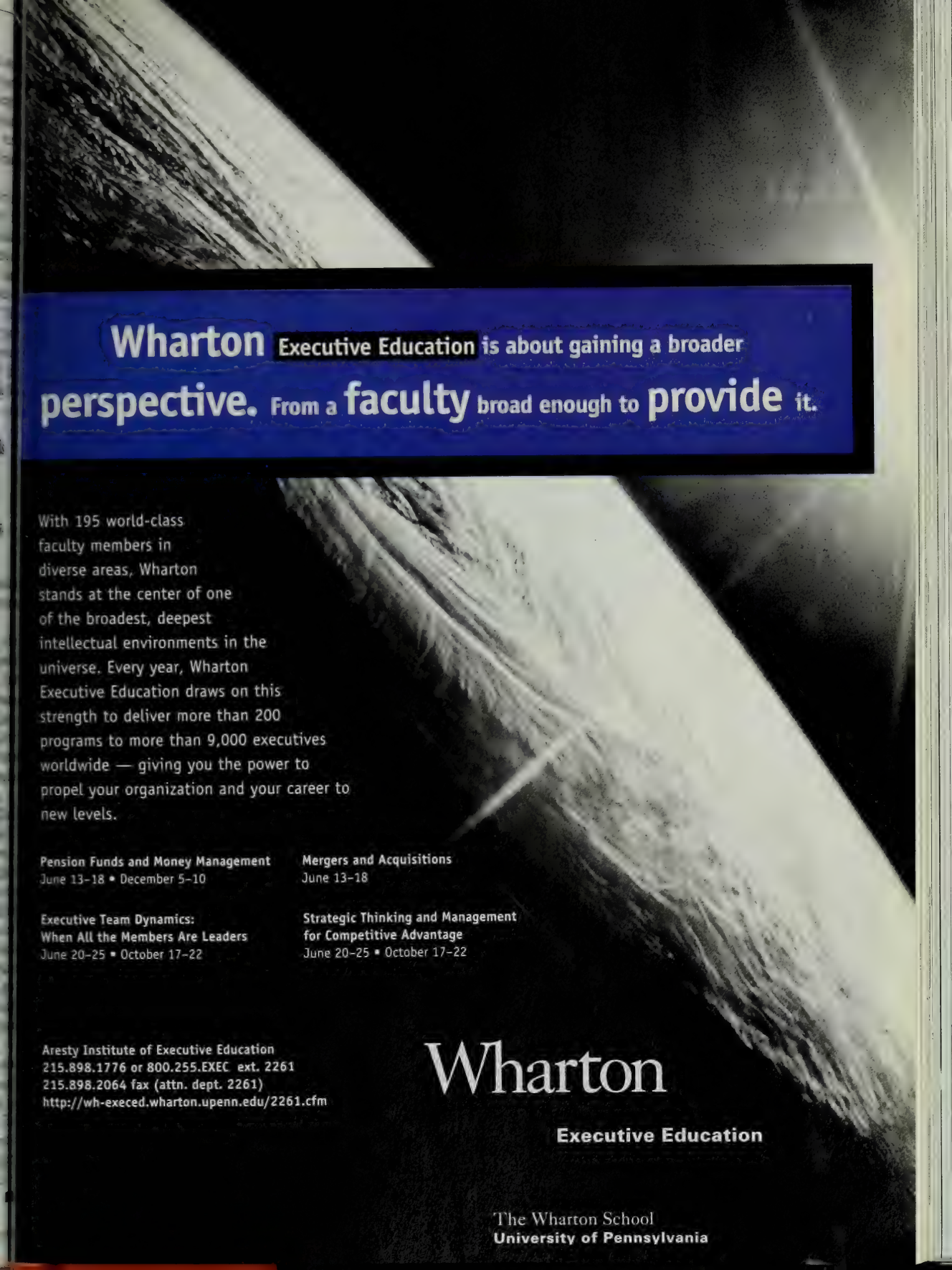
In Little Rock the Fords claim to have snagged one-quarter of all the business lines in the city.

his firm up for Alltel long distanc local phone, paging and Interne access service.

The Fords are moving into oth regions. Last summer Alltel entered second competitive local market, Chi lotte, N.C., as an alternative to incu bent BellSouth Corp. Alltel plans offer competing local service in t more cities this year, keeping start costs low by leasing local and long d tance lines from other operators.

In its costly acquisition of AirTou Communications (FORBES, *Feb.* Vodafone is buying subscribers $4,300 apiece. Scott Ford, Allte president, has a cheaper way to b business. He introduced a referral pl for all Alltel employees: Bring in a n wireless customer and get 40 points new local customer and get 30. Acc mulate 500 points and you can get bicycle for your kid. This particul marketing gimmick should cost abo $14 per subscriber.

Thomas Lee, an analyst at Salomo Smith Barney, expects Alltel's ear ings to increase 23% this year, $712 million, or $2.60 a share. T stock trades at 25 times those expec ed earnings. That's not much high than the ratio for BellSouth, and it a lot less than for Vodafone. ■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Coming to athletic-shoe maker Brooks Sports after 11 years at Nike, Helen Rockey had these words of marketing advice: Don't try to be like Nike.

Runner's world

By Leigh Gallagher

EXECUTIVES AT RUNNING-SHOE maker Brooks Sports are waiting in a conference room for the boss. Helen Rockey, 43, sprints in from a lunchtime jog. Still in a sweat, the trim runner sits down at a table in shorts and T shirt to quiz her managers on how they plan to introduce the Gila, a new running shoe named after a fast-moving lizard.

No suits and ties in this place. Many of the managers, back from their [illegible] noontime jogs, are in running g[illegible] too. For at Brooks, a privately h[illegible] outfit based in Bothell, Wash., it's running, all the time. Wear what [illegible] sell is the motto here.

Nike's Phil Knight built an imme[illegible] fortune by combining sneakers w[illegible] celebrities. But his fashion emp[illegible] waxes and wanes. Nike's earnings w[illegible] down 50% last year, and its stock is[illegible] 40% from its 1997 high of $75.

Under Rockey, Brooks has a v[illegible] different marketing pitch that dispe[illegible] es with the celebrities and zeroes in[illegible] serious runners. Right now, the r[illegible]

Helen Rockey
"Nike's in entertainment. We're in running."

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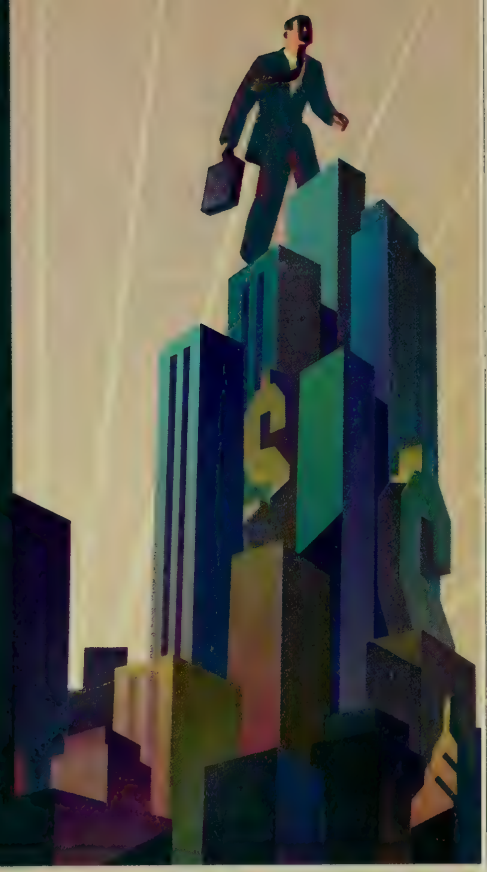

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ning focus is working much better than the celebrity game. Brooks' sales have been growing at a 30% clip for the past four years and should hit $100 million by next year. Operating income (net before depreciation, interest and taxes) last year topped $4 million, up from $3 million in 1997. Orders so far this year are up 34%, with those from specialty running shops up 84%.

Rockey knows the giant she is competing with. She came to Brooks 5 years ago after an 11-year stint at Nike. There she led the team that built the company's graphics and accessory divisions—hats, T shirts and water bottles—to $500 million from $8 million in four years.

When Rockey arrived, Brooks was a mess. It had just been sold by shoemaker Wolverine Worldwide to Aker RGI, a Norwegian natural-resources holding company. Brooks had a successful run during the running boom of the late 1970s. But trying to chase Nike, Brooks had expanded during the 1980s into categories like basketball, aerobics and baseball—and signed big-name athletes like Dan Marino and James Worthy to sell its $70 shoes.

With only a $750,000 advertising budget, Brooks can't afford celebrity endorsers or *GQ* spreads. No matter. It's got 200 competing runners wearing its shoes—for free.

But in trying to become a mini-Nike, Brooks was stretched too thin. When business started to slow, it began using cheaper materials and selling its sneakers at rock-bottom prices to discount retailers like Kmart, which sold them for as little as $20. Brooks lost credibility with joggers, and between 1983 and 1993 it lost some $60 million. "I don't think I really knew what I had gotten myself into," Rockey says.

To save Brooks, she eliminated other sports categories and consolidated the number of Far East suppliers from 20 to 3.

Then she hit the road to meet retailers to tout her newly upgraded product, working 80-hour weeks, "and looking like it," she says. And she boosted the prices—now as high as $120 retail, of which the store pockets about 45%. The stores can make good money from this brand because there are only so many places where sl pers can find it—and Kmart is not

On a recent Saturday at Fleet Sports, a running store in D Calif., Brooks reps brought ba and coffee to an early-morning ning clinic followed by a six- group run. At trade shows, Br imports a Seattle-style coffee ba serve up free lattes.

No more celebrity endorseme Instead, the company enlists a fle 200 competing runners who get shoes but no money. Runners Regina Joyce and John Sence ar household names, but they're ic within the running community.

Brooks spends a $750,000 a year advertising, mostly niche publications *Runner's World* *Running Times*. But MTV spots or splashy spreads. "Every dime to work," says Rocke

Staying within category, Rockey added running clot made out of fabrics Gore-Tex and wi resistant fleece. W sales of $7 million year, the new line he Brooks negotiate m square footage national accounts like Just For F and Gart Sports. This fall Brooks launch a trail-running shoe, a r ning-shoe-meets-hiking-boot com that will go up against the soft bo from Timberland.

In November Stamford, Conn. ve ture capital firm J.H. Whitney & C acquired controlling interest in Bro for some $40 million from its Norw gian parent, which decided to p more attention to its commercial fis ing and real estate holdings. Alo with that deal, Rockey and the other employees picked up a 20% sta in the company. Aker still owns t remaining 20%.

Rockey helps plan the launch par for the Gila. Then she bounds off t conference call with a top ret account negotiating terms for the f 1999 season. "Nike's in the entertai ment business," she says. "We're in t running business." ■

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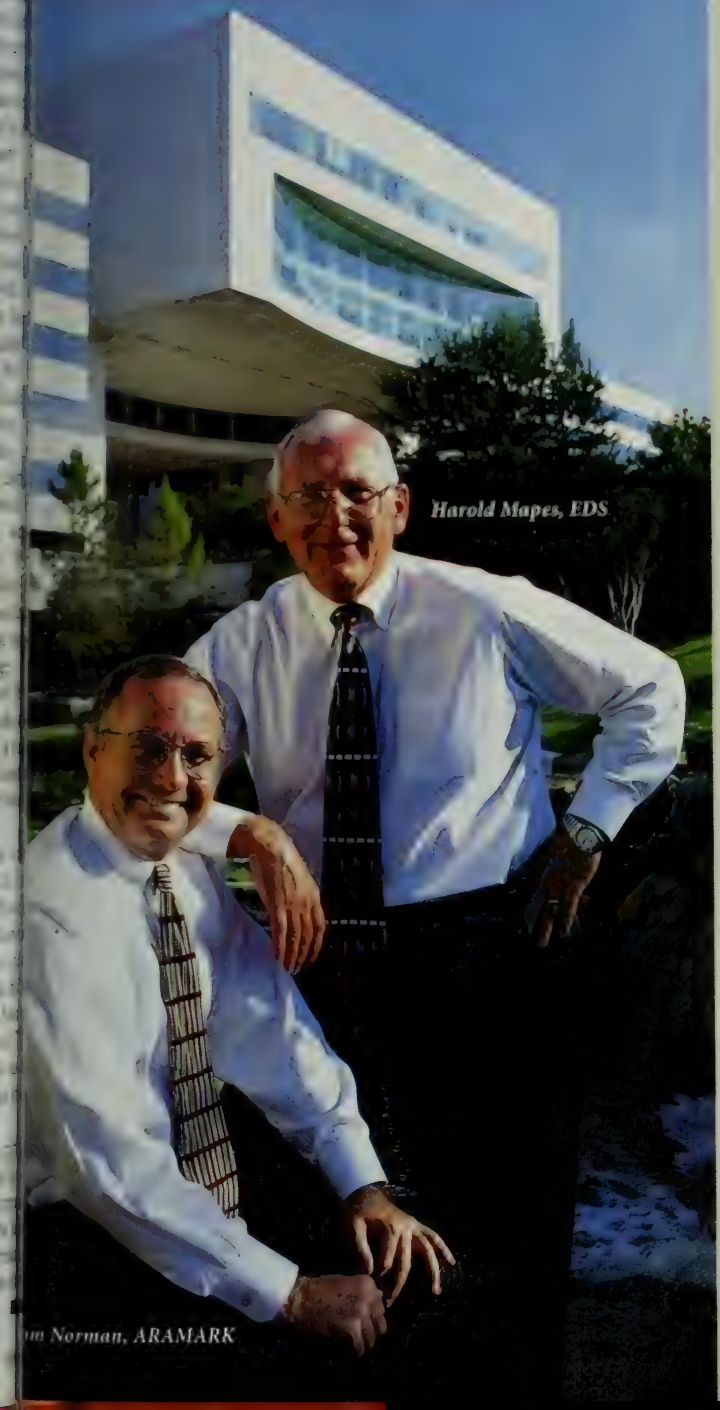

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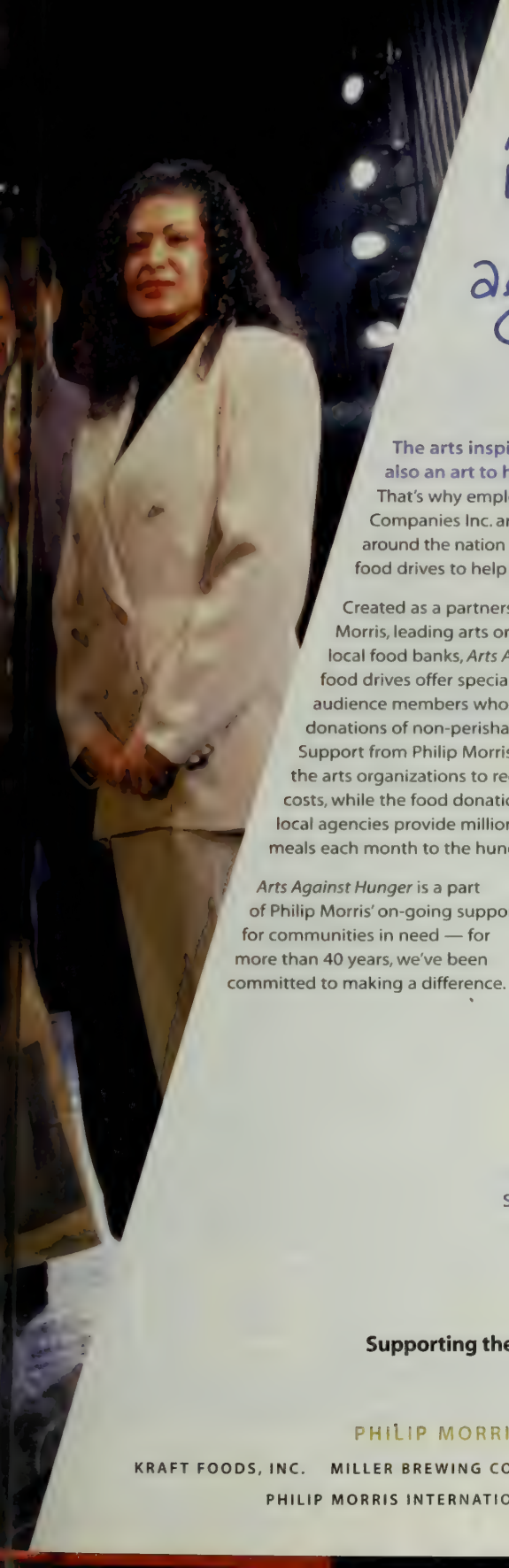
Photo: Fred George Photography at the Joyce Theater, NYC



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Who's going to control the electronics in your living room? Microsoft—or a consortium of rivals?

We're not Hapi with Havi

By Benjamin Fulford

ON THE SURFACE Havi (Home Audio/Video Interoperability) is a geeky set of obscure technical standards. In reality it's a major offensive by Sony, Matsushita and half a dozen other consumer-electronics giants to shape the future of your living room.

On the defensive: Microsoft. It has a rival plan to take control of your TV set by pushing Windows CE and a Havi-incompatible alternative known as Hapi. (Home Application Programming Interface. Cute.)

"We don't think people want a big-picture PC in their living room, where they turn on the switch and use a Microsoft portal to go and see the world," says Akikazu Takeuchi, president of Sony's Platform Software Development Center and one of the main backers of the Havi interface.

Microsoft thinks otherwise. "Our aim is to make our standards ubiquitous," says Alec Saunders, manager of its intelligent appliance division.

This is one standards battle that, for a change, Microsoft isn't assured of winning. Havi's eight backers had total sales last year of $279.6 billion, dwarfing Microsoft's $14.5 billion.

WILLIAM MERCER MCLEOD

Havi heavyweight
Sony's Akikazu Takeuchi is pushing hard for the new standard.

Havi evolved out of joint research by Apple Computer and Sony. When Apple was looking rotten a few years ago, some engineers on the project defected to Sony. A high-speed interface they worked on (IEEE1394) was linked to Havi networking software developed by Sony engineers. Philips Electronics came in later, and in 1997 six other companies joined the league. It announced the standard in late December, and the first products could appear in stores by Christmas, with the real flood due next year.

In essence, Havi will let TVs, VCRs, digital videodisk players and other devices recognize one another and link up in a home network—without the use of a PC. Think of it: one remote control for every gadget you've got. One day your TV could search its siblings for a movie or song and zap it to a DVD in the den. "In the near future you could have a remote control that recognizes speech. You could say 'TV, find me a golf program,'" says Hideki Hirakawa, head of the human interface lab at Toshiba, a Havi backer.

Matsushita hopes to sell a set-top box that can sift through hundreds of channels and record programs its owner likes. In four years or so, the boxes may be able to guide the storing of 200 hours of content and use a search engine to navigate through it, the company claims.

Microsoft operating systems are ill-suited to consumer electronics—too complex, bug-prone and unable to cope with large continuous data streams, says Sukeichi Miki, chief of the multimedia division of Matsushita (maker of Panasonic and other brands). "The Microsoft OS is too heavy for simple devices," adds Toshiba's chief executive, Taizo Nishimuro.

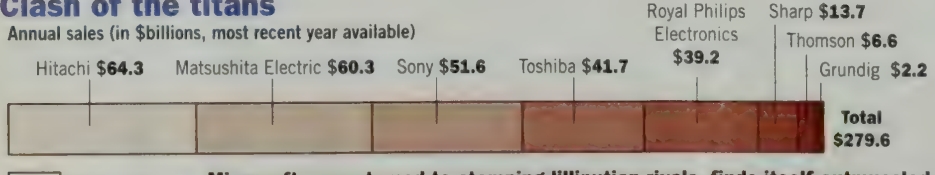
Yet Microsoft's design is a bit more ambitious, aiming to work for all appliances, from stereos to refrigerators, and to allow PCs to edit videos or print out TV images.

To counter that, the Havi forces made their design jibe with Java, the programming language pushed by Microsoft's mortal enemy, Sun Microsystems. Havi now has a bridge to a Java subset known as Jini, which, like Microsoft's approach, seeks to connect everything with everything.

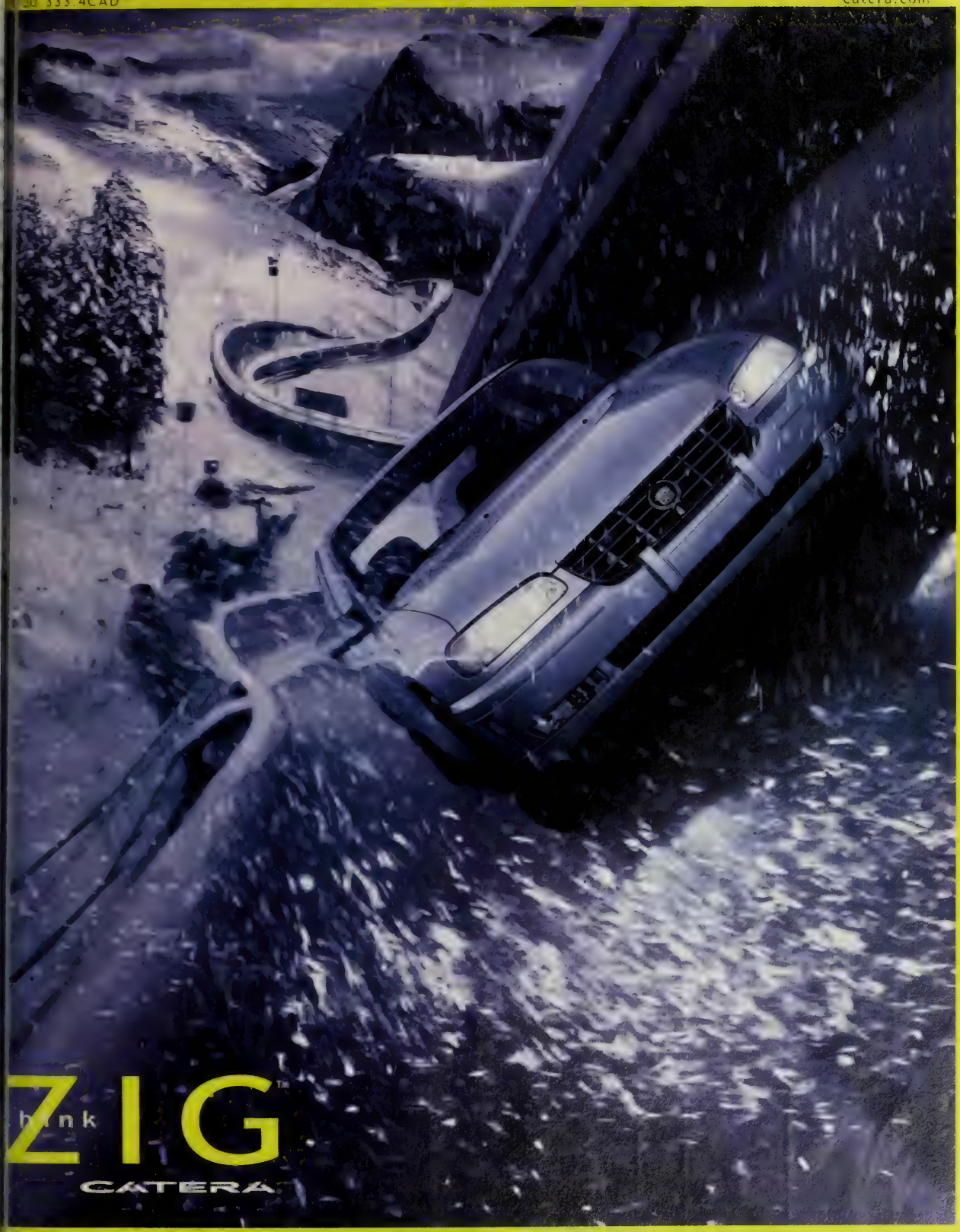
But both sides lose if the industry splits into two incompatible camps. Remember the draining VHS-versus-Beta war that hindered VCR sales in the early 1980s? "We will need to build a bridge" from Hapi to Havi, Microsoft's Saunders concedes. The electronics behemoths, hedging their bets, are in secret negotiations with Microsoft to do just that.

Clash of the titans

Annual sales (in $billions, most recent year available)



Microsoft, accustomed to stomping lilliputian rivals, finds itself outmuscled by the backers of a rival design for linking consumer electronics.



hink about more horsepower than a BMW 328i.
hink about phenomenal traction control.
hink about test-zigging a new Catera.

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Big Wall Street bankers ganged up on a little hedge fund and ended up damaging their own interests.

Bond boomerang

By Brigid McMenamin

WALL STREET BANKERS are in a tizzy over a U.S. federal court decision letting a debtor off the hook. If the decision stands and catches on in other cases as a precedent, it could do a lot of damage to investors who own or trade distressed debt. Not surprisingly, the Wall Street heavies are hoping that an appeals court will reverse the decision.

Here's what's curious: The federal court decision was one the banks had originally supported.

The mess started in 1996 when Peru lobbied creditors to agree to a plan to wipe out some $2.8 billion in Peruvian government debt with 50%—roughly $1.4 billion—in so-called Brady bonds. (These are bonds that are partly backed by U.S. Treasurys.) The emerging markets mavens at big banks seemed hot for the plan—and then a spoilsport emerged: Elliott Associates, a controversial New York hedge fund.

Elliott acquired $20 million of the Peruvian debt, rejected the Brady plan and demanded full payment plus interest. Failing to collect, Elliott sued in federal court in late 1996. That threatened the bailout plan: If Elliott won, no one else would accept just half under the Brady plan.

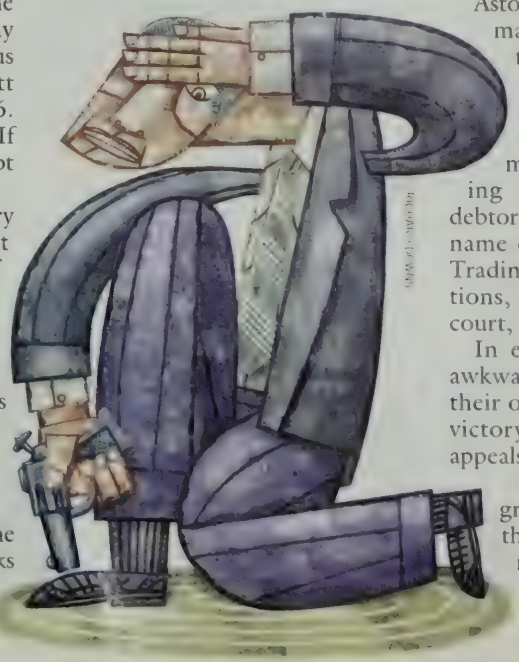
Cornered, Peru threw a Hail Mary pass: It accused Elliott of the ancient crime of champerty—the mischief of buying debt for the very purpose of suing. The champerty defense had never worked in any similar case. And why should it? If successful it could make IOUs uncollectible. What's to stop just any deadbeat from using champerty to stiff any creditor who bought distressed paper in the secondary market?

Meanwhile Peru rounded up some powerful allies: many of the big banks that traded the bonds. In the name of the Emerging Markets Traders Association (EMTA), the banks filed a friend-of-the-court brief in Peru's favor. It portrayed Elliott as a rogue and assured Judge Robert W. Sweet that dismissing the case wouldn't hurt the market for distressed debt. The association's 140 members include Chase, J.P. Morgan, Salomon Smith Barney and Goldman, Sachs.

The emerging markets crowd at these banks had reason to side with Peru. They had seen members of Elliott Associates upset other restructurings with demands for full payment, and feared others would follow.

"A single creditor that won't go along is not helpful to the process," sniffs Michael M. Chamberlin, EMTA's executive director. "A very socially beneficial process will be disrupted."

Beneficial for the big banks. They can trade a haircut in a restructuring for a shot at underwriting and other lucrative business in the debtor country. With no hope of similar deals, outsiders like Elliott fight to get all they can, posing a challenge to the big boys, who are quicker to acquiesce.



Judge Sweet, 76, bowed to the emerging market cabal bent on neutering Elliott—and dismissed Elliott's collection suit.

What Sweet and the bankers failed to appreciate was that they were establishing a dangerous precedent. Sure enough, in October a New York court used the champerty argument to justify not making Bobover Yeshiva Bnei Zion, a religious school, simply pay speculator Remington Investments the $190,000 that Bobover owed on a bank note. To collect, they'd have to go to trial.

That's why big lenders and traders are terrified of debtors crying champerty. "We don't need the medieval concept of champerty energized," says Paul Saltzman of the New York-based Bond Market Association, a dealers' group whose 264 members include the same banks as Chamberlin's crew.

Astonished at what their emerging markets staffs had done, bond traders at the banks resolved to attack Sweet's decision. In essence, bond traders are more interested in keeping the market liquid than in maintaining comfortable relations with debtor nations. So the traders, in the name of the Loan Syndications & Trading and Bond Market Associations, filed briefs to the appeals court, favoring reversal.

In effect, big banks are in the awkward position of wishing that their own colleagues' federal court victory turns into a defeat at the appeals level.

Dare they have Chamberlin's group effectively switch sides in the coming appeal? That would make the banks look awfully hypocritical. "I don't know what we're going to do," admits Chamberlin. ■

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With deregulation, an upstart can land lots of electricity customers. But can it make any money from them? New Energy Ventures doesn't know yet.

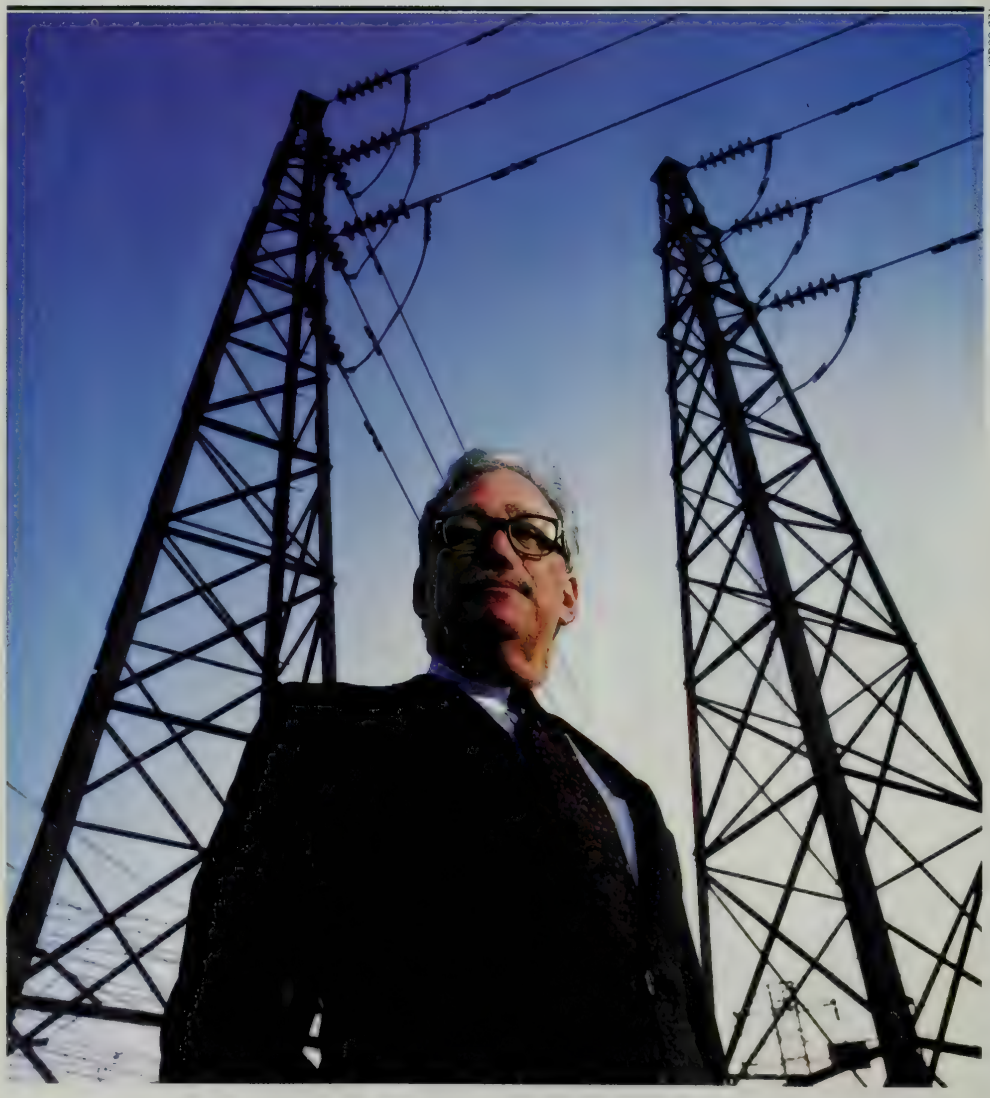
We'll make it up on the volume

By Christopher Palmeri

PERHAPS WE SHOULD CALL IT th Amazon effect. It now seems to b socially acceptable in the capital market to lose a ton of money, provided tha you gain market share while doing so

Some such phenomenon may be a work in the newly deregulated electric ity market. A Los Angeles-based start up called New Energy Ventures seem to be wonderfully successful at lurin customers. But what has it accom plished for its owners? Nothing yet The company lost $20 million (after tax) on $208 million in sales in 1998

Since last April ratepayers at Cali fornia's three largest utilities hav been able to choose their electricit suppliers. Customers representin



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New Energy Ventures President Michael Peevey **As a utility executive, he said deregulation wouldn't work. Now he's spending millions to prove himself wrong.**

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*In this example, MoneyGuard pays up to $150 a day for home health care, nursing home care or assisted living, or up to $75 a day for adult day care.

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IMSA
INSURANCE MARKETPLACE STANDARDS ASSOCIATION

Only in Vermont

UNDERCUTTING the local electric company is difficult enough. How about charging more than the local utility? That's the business plan of South Burlington, Vt.-based startup Green Mountain Energy Resources, which resells "environmentally correct" power made from water, wind, natural gas and solar sources.

Depending on which mix you chose, your electricity could come out costing as much as 20% above what the local utility charges.

Isn't it hard to know that the watts going into your hot tub are clean ones? The electric grid is a pool open to every power station and thus reflects a blend of sources. No matter, says Green Mountain. By choosing its power, you displace evil nuclear, coal and oil generation.

Green Mountain is the brainchild of a former Johns Manville insulation marketer, Kevin Hartley, 39. His principal backer is Dallas entrepreneur Samuel Wyly, who put in $60 million and hired former investment banker David White as president.

Hartley and White
Tree-hugger watts.

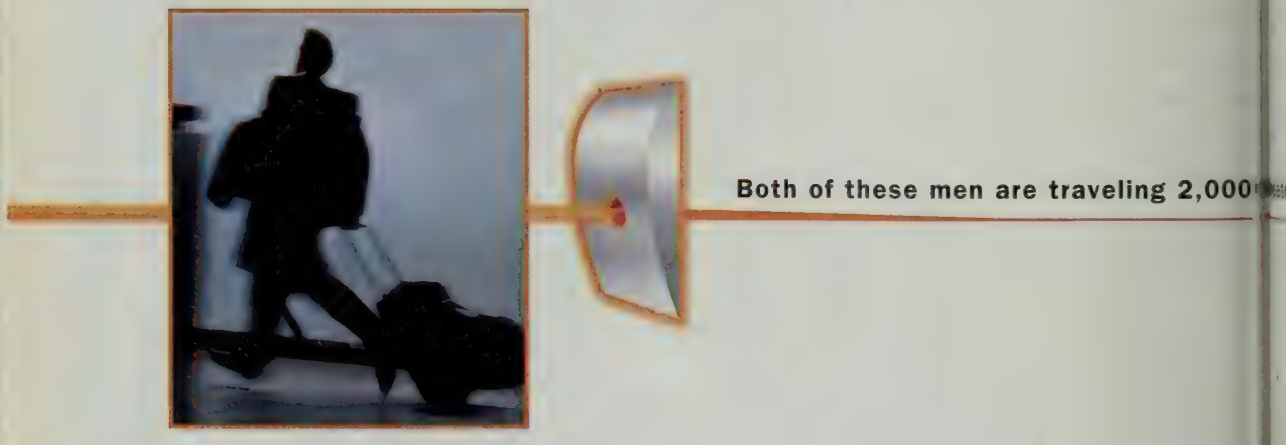
Green Mountain has been advertising heavily in California and Pennsylvania. It claims to have signed up 100,000 customers. Revenues should top $50 million in 1999, but the firm will be in the red for years.

All for a good cause, supposedly. Says Hartley: "Buying power from Green Mountain is way more powerful than giving to an environmental group." –C.P.

12% of the power consumed hav switched. New Energy claims to hav signed up 40% of the switche market. In some sense this is a cou for Michael Peevey, the 61-year-ol founder and boss at New Energy. Si years ago Peevey, then president c the regulated electric giant Ediso International, was passed over for th top job. Now he is stealing customer from his former employer. "For year as a utility executive, I would g around telling people that deregula tion was a bad thing," Peevey recalls "I told them we'd see blackouts. gave out all kinds of b.s. Now I hav the intellectual high ground."

A year ago some 250 companie registered to offer power in California Today only a handful are actively mar keting electricity. Some notable with drawals include Cincinnati's Cinerg Corp. and Montana Power Co. Enron Corp. abandoned a high-profile effor to reach residential customers bu remains New Energy's rival in th industrial market.

Peevey's outfit has taken an earl



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d because New Energy didn't so ch call on customers as it did lobby m. Remembering the days he spent a utility executive visiting with spe- l interest groups to win their sup- rt for new power plants and/or rate es, Peevey contacted trade associa- ns like the Building Owners & nagers Association, the Association California Water Agencies and the lifornia Wine Institute. In some tances, he cut the associations in for raction-of-a-cent royalty on every owatt-hour sold to their members exchange for their endorsement of w Energy. An association with a big stomer base could thus pick up 00,000 a year or more in royalties. To the customers paying the bills evey made a simple pitch: Whatev- New Energy saved it would split th the customer, typically 20% for ew Energy, 80% for the customer. Ve liked the idea that New Energy esn't make money if we don't make oney," says Bradford Wilkins, chief ancial officer of steelmaker Tamco Rancho Cucamonga, Calif. Tamco dropped Edison and chose New Energy over five other rivals. Wilkins figures the switch is saving his company about 5% off its previous rates.

In less than a year New Energy has signed up 750 industrial customers in California, Pennsylvania and New York, the three states with the most open electricity markets.

Making money from these customers will be difficult, however. New Energy must naturally pay the incumbent monopoly a fee to transmit the electricity to the customer's door. On top of this, each of these states is trying to ease the shock of competition on the incumbents. In California, for example, legislators created a four-year period wherein the incumbent utilities collect a transition charge to compensate them for the billions they have sunk, with the regulators' connivance, in uneconomic power plants. For now this compensation is just about high enough to erase most of the savings folks like New Energy can create by buying electricity in the wholesale market.

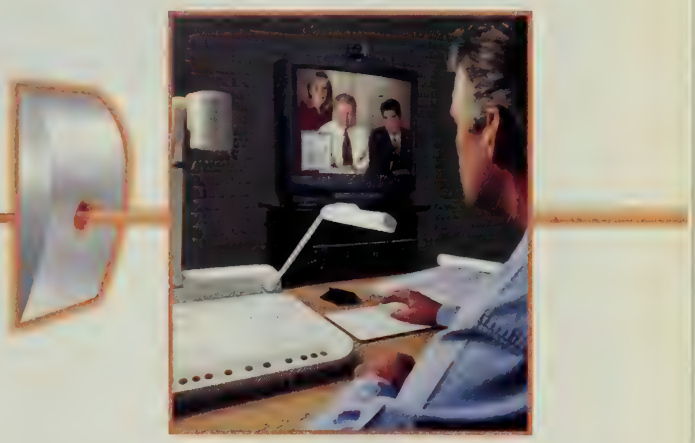
One year down, three to go on this recipe for red ink. At the end of that period New Energy might make enough to recoup its losses—if the customers don't bolt for another discounter.

"I told them we'd see blackouts," Peevey recalls. "I gave out all kinds of b.s."

Peevey has a deep-pocketed partner: UniSource Energy Corp., the parent of Tucson Electric Power Co., has invested $40 million in New Energy and guaranteed another $26 million of debt. UniSource owns half of the company. Peevey and seven other executives own the rest.

Does Peevey have the intellectual high ground? Not until his company makes a profit.

eeting. Which one would you rather be?



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Low-wage earners are no better off than they were 20 years ago.

The bottom rung

By Peter Brimelow

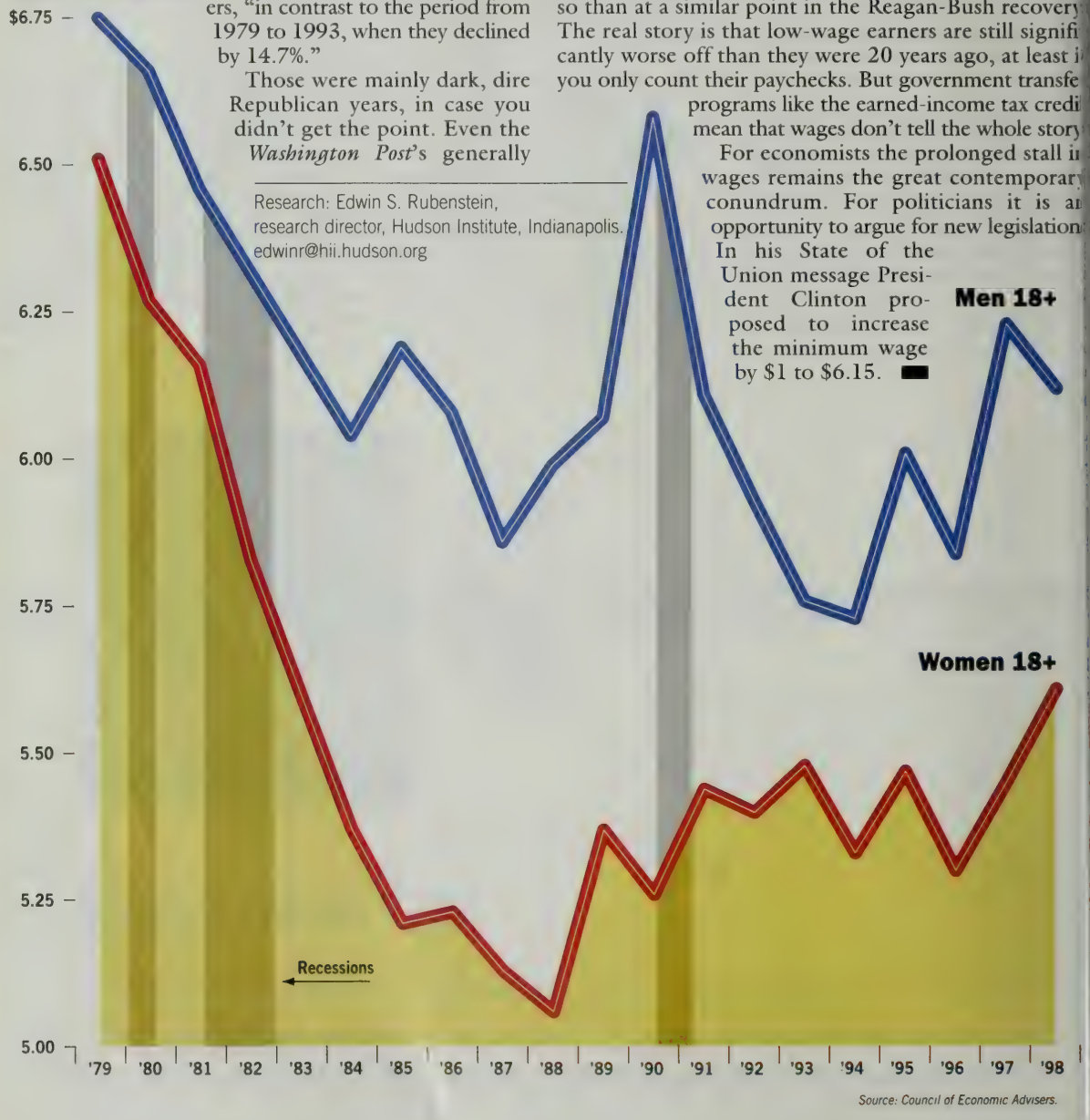
"THE REAL WAGES OF LOW-WAGE MALE WORKERS have shown large increases in the past few years," trumpeted a recent report from President Clinton's Council of Economic Advisers, "in contrast to the period from 1979 to 1993, when they declined by 14.7%."

Those were mainly dark, dire Republican years, in case you didn't get the point. Even the *Washington Post*'s generally sensible James Glassman inhaled this cheerful White House line, describing the trend as "heartening."

Our advice: Look at the big picture. Low-wage hourly pay is indeed recovering, somewhat shakily. But no more so than at a similar point in the Reagan-Bush recovery. The real story is that low-wage earners are still significantly worse off than they were 20 years ago, at least if you only count their paychecks. But government transfer programs like the earned-income tax credit mean that wages don't tell the whole story.

For economists the prolonged stall in wages remains the great contemporary conundrum. For politicians it is an opportunity to argue for new legislation. In his State of the Union message President Clinton proposed to increase the minimum wage by $1 to $6.15. ■

Research: Edwin S. Rubenstein, research director, Hudson Institute, Indianapolis. edwinr@hii.hudson.org



Source: Council of Economic Advisers.

Daimler isn't the only German outfit trying to import American management skills. Look at construction giant Philipp Holzmann AG.

Cross-border shakeup

By Richard C. Morais

BROOKLYN'S OLD NAVY YARD will soon be home to the largest television studio outside Hollywood, an $80 million, 400,000-square-foot complex with everything from soundstages to scenery workshops. The building's purpose: quintessentially American. The builder: German. Philipp Holzmann AG, the 150-year-old outfit constructing the studio, is based in Frankfurt but is aching to expand its U.S. presence, not just to diversify an international revenue stream but to diversify its pool of managerial talent.

With estimated 1998 revenue of $7.2 billion, Holzmann is up there with America's biggest, the $11 billion Fluor Daniel and the $10 billion Bechtel Group. But big doesn't necessarily mean good. Holzmann lost $900 million in 1997 and nearly went under. When 1998 earnings come out in May, they will be close to breakeven, estimates Robert Flemming Securities analyst Alastair Stewart.

Holzmann is a case study in the worst habits of German management: technically superb, but covering up serious management deficiencies with immense arrogance. Customer service? "The engineers knew everything; there was no need to ask the customer," explains Heinrich Binder, a rescue artist who joined the company 17 months ago as chief executive. Shareholders? Holzmann's management spent the 1990s misleading the markets about losses by feeding an estimated $3 billion of hidden reserves into the earnings stream.

Until recently German engineers ran the company like pre-Bismarck Germany: There were 440 outfits operating as separate fiefdoms. The stories are now legend: The Holzmann board turned down a project, but a regional subsidiary went ahead anyway. One Holzmann company bought cement at $52.50 a ton while another paid twice that amount from the same supplier. A French subsidiary ran up losses of $300 million. Turns out the French board members didn't speak German, nor the German representatives French.

CLIFF SERNA

Heinrich Binder of Philipp Holzmann
Building a U.S.-German giant.

The 1990 German reunification nearly finished the company. The engineers rushed headlong into East German projects without carefully assessing risks or lining up tenants. The bubble burst, and the German construction market went into its worst and most prolonged postwar recession.

Shareholders, led by Deutsche Bank, hired Binder, a 48-year-old lawyer who made his reputation turning around a German auto parts company. Binder quickly cut Holzmann's employees by 40%, to 32,000. He replaced 50% of the company's second-tier managers and scoured Holzmann's portfolio looking for inspiration.

He found it in two U.S. subsidiaries, both acquired two decades ago, which between them had a $3.3 billion construction backlog but also had a talent for balancing construction work with lower-risk contracting. One of them, for example, had a sideline reading utility meters in Louisiana and running U.S. Navy bases in Puerto Rico.

Binder split the company into three parts: Germany, U.S.A. and a New York-headquartered international division. "We are creating a U.S.-German company," says Binder. "We need the Americans' willingness to change fast, to make decisions and quickly implement them. We need their systems and risk controls and their systematic approach to marketing, that American customer-orientation."

Binder isn't just talking; he has placed 58% of Holzmann's revenues under the control of U.S. executives. One of those: Gene McGovern, 58, the New York City-born construction legend who built EuroDisney, Canary Wharf and the world's tallest buildings, the Petronas Towers in Malaysia. From New York, McGovern runs Holzmann's international division, an operation that includes a Turkish hydroelectric dam and the world's largest "cavern" power plant, tucked underground in a valley in rural China.

Binder has some believers. Gevaert NV, a Belgium investment holding company, recently bought 30% of the shares, pushing up the price from the equivalent of $100 to $155 on the Frankfurt exchange. If the Binder revolution takes hold, Gevaert will make a nice profit, and investment bankers will have further justification for the current wave of cross-border mergers.

Someday, someone will make a great fortune by exploiting the interplay of television and the Internet. Will it be Gerry Laybourne? With the help of some powerful friends and some deep pockets, she wants to create a new medium for 50 million female viewers.

The Convergence Gamble

By Tom Post

Geraldine Laybourne—veteran cable television executive and born-again entrepreneur—knows the power of storytelling. Especially when it comes to her own accomplishments. She likes to tell the one about building a fort, stick by stick, in her yard at age 6. She worked at it 12 hours, finishing up at 10 p.m. with the help of a flashlight. "My father looked at me and said, 'God save the world,'" she recalls. "It was the first time I knew there was something in me that just wouldn't let go."

Laybourne, 51, is now trying to build something rather more ambitious. Her Oxygen Media is a multimedia company, aimed primarily at women, that pursues the ever-elusive goal of convergence—combining the entertainment power of television with the interactivity and specificity of the Internet. "Five years from now we'd like to be in 50 million homes with a cable network and to be part of women's daily lives on-line," she says.

She has found some powerful believers, raising something in the neighborhood of $100 million in cash and property (Web sites and libraries of TV programs). She's landed a cable commitment from Tele-Communications, Inc. and an offer to raise big bucks from Morgan Stanley. Walt Disney Co. and America Online Inc. have taken undisclosed equity positions.

So have talk show host Oprah Winfrey, as well as Marcy Carsey, Thomas Werner and Caryn Mandabach—the team that created *The Cosby Show*, *Roseanne* and *3rd Rock from the Sun*, among others—who have agreed to provide original programming. "I felt it was time after all those years that TV has used me, for me to use it," says Winfrey. "I'd like to use it to do what it should do: be of service, help women."

Mighty friends or no, Laybourne will need all the help she can get. She is treading where the giants of media and technology—Time Warner, Bell Atlantic and Microsoft, among them—have already stumbled *(see box, p. 116)*.

Someday—it could take a decade—you will be able to get movies on demand, choosing from a library of thousands of films, instead of going to Blockbuster. You'll be able to watch a live special on your favorite rock group (or string quartet), download its CD for a fee, find out when and where it's performing next, zero in on a seating plan and buy a ticket. You may even be able to wander the virtual aisles of a clothing retailer, virtually try on particular brands and styles and place your order for a custom-made suit.

Very cool. But that someday scenario will force major disruptions across myriad industries—video rentals (an $8 billion business last year), music ($12.5 billion), TV advertising ($52 billion) and more. New players will

MICHAEL L ABRAMSON

emerge; old standbys will have to adapt to the new realities or die off.

That vastly changed media world will come in fits and starts, incremental steps that in some cases will be made by newcomers like Oxygen. This is what tantalizes Laybourne: If she can carve out even a tiny slice of the huge sums at stake, she might build a billion-dollar business in little time. She has probably improved the odds by narrowing her pitch to women who want to take charge of their lives—and have money to spend. The interactive future will be about narrowcasting, in her view.

Now back to reality. So far, no one has solved the most basic drawback: Most people regard TV as an entertainment box and the Internet as a separate place to get information or to buy things like books and airplane tickets. Whatever the gadgets to blend the two—high-speed modems, Microsoft's WebTV, something else—the public isn't ready yet. Meantime, early customers will have to shuttle between the boob tube in the living room and the computer in the den.

But what if the gadgets were just a little better? Imagine that your PC and TV were blended into a single instrument with a big screen, a conventional remote control and a keyboard. You sit in the living room watching a cable TV talk show aimed at women. A commercial break advertises a getaway vacation to a health spa in the mountains. Now you grab the keyboard and with a few clicks have a sales brochure sent to your home—or maybe even book a room at the spa, plus an airline reservation.

Laybourne can't spell out the details of this interaction, because no one can. "We don't know exactly what convergence will look like," she says. "But we know the Internet is going to change the passive, one-way nature of TV." She also knows she won't get very far with interactive software alone. A million Web sites offer that. So she wants to own the show that captures your attention to start the process.

What this scenario needs is a $500 television with some PC-flavored processor chips and modem chips built into it. That cheap all-in-one device may be a few years away. In the meantime Laybourne envisions, for starters, a simple integration of two media, which she calls "synchronous Webcasting." In other words, the simultaneous broadcasting of programs on cable TV and the Internet, with one medium feeding the other—something like the strategy of MSNBC, the TV and Web joint venture between Microsoft and NBC.

Long before she figures out convergence, though, La bourne must vault over some high hurdles. For one thin there's already a women's channel—Lifetime—that reac es nearly every U.S. household wired for cable. No sm irony that Laybourne oversaw Lifetime in her last corp rate job, as president of Disney/ABC Cable Network before quitting to start Oxygen last May. Glaring fa number two: There are colonies of competitive Web sit out there that already serve women *(see box, below)*.

No matter. Oxygen, based in New York, San Francis and Los Angeles, is still planning to unveil its Web sit on May 1. The cable channel is due to arrive Jan. 1, 200

Call it a gamble of $400 million or more. That's wh Laybourne has budgeted for programming and marketin over the first four years. To help, Morgan Stanley will do road show to raise a large sum from a few strategic par ners—including other media companies—to give Oxygen valuation above $750 million after a first round of financing. Laybourne will need every cent. She's counting on small revenues initially from

It Takes More Than an Ivillage...

LONG BEFORE Oxygen Media first drew breath, Manhattan-based Ivillage recognized the commercial potential of creating a "virtual community" of women on the Web. Ivillage was founded in June 1995 by Candice Carpenter, a former executive at Time Warner and home shopping channel QVC. She had help from Nancy Evans, onetime publisher at *Family Life* magazine, and Robert Levitan, a consultant at America Online.

The idea was simple: Offer useful and entertaining content—in this case, on parenting, health and finance—and lead your community to commerce. Investors loved the concept. Over the past three years 72 stockholders—including Kleiner Perkins, AOL and Intel—have poured more than $90 million into Ivillage. The company now hopes to raise $46 million in an initial public offering.

Four years into this concept, Ivillage hasn't made any money. While it's the largest women's destination on the Web, drawing 3 million unique visitors a month, Ivillage lost $32 million on revenues of $9 million during the first nine months of 1998.

It takes a big bank account to create a village. Since she got going, Carpenter has spent more than $20 million to create content and maintain a large staff, now about 200; she has run through another $32 million in advertising and distribution to portals like AOL and Excite. Ivillage, according to its Securities & Exchange Commission filing, has lost a cumulative $65 million and expects to remain in the red for the foreseeable future.

Ivillage Chief Executive Carpenter, 46, insists the company is right on track. All that red ink, she claims, is a healthy sign of reaching critical mass. Having built the audience, sh says she now wants to introduce commerce plays.

Actually, commerce has always been part of the plan. But visitors to the site don't

he Web sites and nothing at all until next year from TV dvertisers and cable operators.

Laybourne has beaten the odds before. With just a aster's degree in elementary education from the Univer- ty of Pennsylvania and a feel for what children's television ught to be, she started a production company in 1979 ith her husband, Kit, a filmmaker. She approached a little- nown cable network called Nickelodeon with a pilot—and nded a job.

Over the next 16 years she helped build Nick into an sset for its new owner, Viacom, that today is worth about 8 billion. She had no trouble convincing her boss to let er take chances. "Gerry was very articulate in expressing er need for resources," recalls Sumner Redstone, iacom's chief executive. "I had so much confidence in er, I can never remember saying no to her."

Nickelodeon succeeded because Laybourne gambled on mold-breaking shows like *Rugrats* and *The Secret World of Alex Mack*, which didn't talk down to kids. The programs celebrated the fears, foibles and triumphs of ordinary children—and hooked them with unsentimental humor. "She turned what was a 'spinach' channel, something kids should eat, into a 'pizza' channel, something kids wanted to eat," explains Robert Pittman, president of AOL, who was Laybourne's original boss at Nick. Now AOL is a partner in her latest venture, swapping cash and three Web sites devoted to women—Electra (career issues, mostly), Thrive (health) and Moms Online (parenting)—for a piece of Oxygen.

Laybourne is counting on the fact that American women are a rich target for advertisers. They're starting new businesses at a faster rate than men. New technology is making it easier to target women, who are flocking to the Internet in ever-increasing numbers. Women are media hounds, with one notable exception—watching cable television.

The opportunity to fill that gap sold TCI—the nation's largest cable operator, which last year agreed to be acquired by AT&T. So far TCI is Laybourne's only commitment. It

Where are the shoppers? Founders Candice Carpenter and Nancy Evans.

seem to be shopping in great numbers. The bulk of Ivillage's revenues—82%—still comes from advertising. It's not for want of trying. Carpenter has changed her business model several times.

First there were corporate sponsorships. Polaroid, Nissan, MGM and others underwrote advertorials, offering product information as well as games, activities and chats. But sponsorship dollars fell far short of expenses in many cases. "It cost a lot of money to build a mini-Web-site for an advertiser," says a former senior executive at Ivillage. "Quite honestly, most [sponsors] did not pay exorbitant fees for them."

Ivillage hasn't had much success with e-commerce, either. An early attempt, an on-line store on its parenting site, ParentSoup, offered products from a dozen retailers, including Avon and CDNow. But hardly any products were sold. "Parents came to ParentSoup to get information and connect with each other, not really to shop," says co-founder Levitan, the former head of ad sales, who quit the company in December to run his own electronic gift start-up, Flooz.com.

Carpenter has also tried to get visitors to buy on impulse. Read about the 14-day Fat Flush diet on Ivillage's Fitness and Beauty site, and learn about the fat-burning nutrient Carnitine. Click on "The Carnitine Miracle" and you are linked to Amazon.com's Web site, where you can buy books about the supplement. Ivillage has deals with more than 45 merchants, who have revenue-share agreements to sell on the site. Again, revenues have been disappointing: $420,000 in 1997 e-commerce sales.

Carpenter is now trying to be a full-fledged retailer. Last March, Ivillage bought a majority stake in Ibaby—which sells more than 20,000 infant products on the Net—and linked the retailer to its site. Last year Ibaby had $1.4 million in sales. Ivillage plans to use the proceeds from its public offering to buy the rest of Ibaby and acquire other electronic retailers.

Expenses should drop this year. In December Ivillage gave up 10% of the company to NBC for $25 million worth of prime-time advertising. Carpenter is also creating Ivillage Online, a joint venture with WorldNet, AT&T's Internet service provider; the long distance carrier will pay for TV advertising. Those deals should keep Ivillage's marketing costs well below last year's $20 million.

But will any of it convince women to shop at Ivillage?

–SILVIA SANSONI

will eventually carry the Oxygen network to 80% of its 10 million or so subscribers, but will provide only 3 million when Oxygen launches next January. "It's a very important channel for half of my audience—women," says TCI President Leo Hindery. "I looked at the programming opportunities and thought this was a horribly underserved portion of the population."

That may come as a surprise to the folks over at Lifetime, the 15-year-old cable channel owned by Disney and Hearst Corp. A mix of made-for-TV movies, magazine shows and recycled sitcoms and dramas, Lifetime reaches 72 million homes. Last year its prime-time ratings rose to 13%—enough to rank it number one in delivering the critical category of women to advertisers. "That doesn't sound like an audience that's underserved," says Meredith Wagner, Lifetime's senior vice president of public affairs. "We're the leading television resource for women. Oxygen is still just a concept."

Right enough. And it's at the conceptual level that Laybourne claims she will make her biggest impact.

So what will it look like? This gets a little tricky—partly because the company's a little paranoid about giving away secrets, partly because its ideas are very fluid.

Laybourne is still working out a basic format for combining the Net and TV. Turn on the tube for a program on, say, how new divorcées or widows are coping with their changed financial circumstances. Later, go to a Web site for more detailed information on mortgages, managing cash flow and the like. Talk with experts on-line who can offer tips on a budget and links to financial institutions. Picture a similar experience for shows on breast cancer or starting a business.

The advertising possibilities are tremendous—if you can trap viewers with decent programming and get them to stay for the commercials, or switch to their PCs. Oxygen is hoping to change the way women shop on the Web. "If you serve them well, they will pay," says Lawrence Wilkinson, Oxygen's vice chairman and strategic noodler. He speaks intriguingly about customizing the on-line experience of buying. Irksome, repetitive purchases, like dishwasher detergent or panty hose, would be reordered from a menu that remembers what brands the viewer bought before. The most enjoyable 20% of shopping—whether it's for clothes or a vacation—would come from a more intensive data feed from the cybermall.

The plan for TV programming is a little more advanced. Laybourne & Co. envisions a day divided into various blocks instead of individual shows. A three-hour morning block, called The Hive, will present a variety of features about health, parenting and personal relationships. Between noon and 2 p.m. Working Lunch will offer management advice for women entrepreneurs and corporate executives, and tips about personal finance. Tribes, a block from 4 to 6 p.m., is aimed at teenage girls. In the early evening a comedy block will draw on original programming as well as sitcoms from the Carsey-Werner library as they become available. From 8 to 10 they'll run movies on Boudoir Cinema.

Says producer Marcy Carsey, "Our intention is to communicate with audiences in ways that haven't been done before—to have on-camera personalities reflect the heart and soul and diversity of the viewers."

Hypothetical example? "Imagine handing out new digital cameras in various cities to teenage girls and asking them what their Saturday night is like," says Tom Werner. Focus groups have been a rich source of ideas for programming. "We had one suggestion for a show called *Back Fence*," says Caryn Mandabach. "A place where you could exchange all kinds of ideas—everything from your worst blind date to your best boss."

The first year will probably look a mess. "We have to try all kinds of stuff and fail—the same way we did at Nick,

Broken Circuits

Progress requires failure. And so it was in the early 1990s that companies spent upwards of $ billion in hot pursuit of interactive television. Most it went down the digital drain—but it did provide a free education to latecomers. Perhaps Oxygen Medi Geraldine Laybourne has learned from their travail

THE FABLE OF 500 CHANNELS

■ Tele-Communications Inc. starts it all in 1992. Chief John Malone hails digital compression and 500 channels. Agrees in October 1993 to sell TCI to Bell Atlantic for $33 billion. Invests $200 million in the National Digital Television Center, spanning 270,000 square feet. Pumps $26 million into a hot startup, Interactive Network, trading at $11 a share.

The Bell Atlantic bid collapses in four months. The digital center today handles cable transmission. Interactive Network went Chapter 11 last year; its stock is at 31 cents. No cable system carries 500 channels. Yet.

STARGAZING FOR DOLLARS

■ Interactivity bedazzles Bell Atlantic Chief Raymond W. Smith, even after he dumps TCI. In 1993 he starts Stargazer, aiming to link up million homes in six states by 2000. Also erects a sprawling new production center in Reston, Va. Cost of the enti

ect: $200 million. ly 1996 only 4,000 homes uburban Virginia are ed. Stargazer fades out. Reston site remains: 2,000 square feet, designed ouse 350 people; today it ds 30 working on Web sites. 1998 Smith retires.

RANGE BEDFELLOWS

he cowboy Bell, U S West, s Hollywood, ponying up .55 billion for a 25.5% erest in a Time Warner part- ship in May 1993. They to spend $5 billion to zap ltimedia to millions of cable stomers by year-end 1998. 1995 they build a snazzy twork in Orlando and herald ationwide rollout. Two years later only 4,000 mes get it. Time Warner shuts wn the Orlando experiment in e 1997. The tab: $150 mil- n. But the U S West stake is steal; it now is part of the ell's MediaOne spinoff.

U-TURNS ON THE I-WAY

■ Oracle spends $100 million to develop a "media server." It goes nowhere. Microsoft spends at least that much on Tiger, a similar effort; no sale.

■ SBC Communications becomes the first Bell to buy a cable firm, paying $700 million for Hauser Communications in 1994. Four years later SBC sells out at $50 million less than it paid.

■ Bell Atlantic, Nynex and Pacific Telesis, advised by superagent Michael Ovitz, put up $300 million in 1994 to fund Tele-TV. The program venture spends a fortune, never gets off the ground, dissolves in 1996. A rival effort, Americast, fares no better. Walt Disney Co., BellSouth, SBC, Ameritech and GTE put up a total $500 million and talk of reaching 68 million customers in 33 states. Today it runs plain cable systems in a few markets, with 235,000 subscribers.

■ Nynex puts $1.2 billion into Viacom in October 1993 to ensure access to programming but never needs it. Bell Atlantic bought Nynex, but Viacom has since redeemed its shares. MCI, advised by Michael Milken, invests $1 billion in Rupert Murdoch's News Corp. in May 1995 and pledges a billion more. Second payment never comes; first one is shifted to a satellite business.

■ June 1998: TCI agrees to be acquired by another big phone company: AT&T. They vow the deal, now valued at about $60 billion including assumed TCI debt, will unleash a digital deluge of interactive services.

–TOMAS KELLNER

ays Laybourne.

Adds Werner, "I think if we're clear about our intentions and make mistakes the first year, the audience will forgive us—as long as we respect them."

Oprah Winfrey will make a significant contribution, first on the Internet, then on the cable channel. In a series called *Spoken Word*, she will voice-over some of her favorite passages from literature and life, animated by graphics. She'll also take a leading role in an ongoing Oxygen survey that examines how women view politics, the financial world, their roles in society, their personal lives and the new media. "I'm the most illiterate person when it comes to the Internet," Winfrey says. "We could create a whole show about me learning the Web."

But first Oxygen must convince cable operators to carry the channel. Laybourne says she needs 20 million subscribers by 2001 to make a sizable impact. The 3 million subs from TCI are a good start. But there's a catch: To get those 3 million subs, Laybourne must find an additional 5 million on her own by next January.

Laybourne doesn't think it'll be hard to find other takers. She's held discussions with a dozen or so big cable operators. Of the five or six cable executives FORBES reached, many sound excited by Oxygen, eager to find space on the few remaining analog channels—eventually. "We will consider signing a contract before Jan. 1, 2000," says Ajit Dalvi, senior vice president for programming and strategy at Atlanta-based Cox Communications, which has 3.8 million subscribers. "But we will not commit distribution without knowing more about her programming."

Meantime, there's the May 1 deadline. That's when Oxygen plans to cut the ribbon in cyberspace for five Web sites, two of them—on relationships and entertainment—entirely new. (Oprah.com debuts Aug. 1.) Since acquiring three sites from AOL last fall, Oxygen has been feverishly upgrading them with new content and navigational tools.

There's no shortage of women's sites already out there, from an upstart like CyberGrrl to the more established Women.com and HomeArts (which recently announced a merger). Laybourne wants to roll over them all. Oxygen claims its sites attract nearly 2.6 million unique viewers a month, versus 3 million for Ivillage.com, a pioneer of Web communities of women. But it's a very tough way to make a buck: Ivillage has yet to earn a cent.

Oxygen will launch its Web sites with the help of an innovative device—a computerized "information wallet" from American Happy Ware, a small Burlington, Vt.-based software outfit. Buzzy, as it is known, is sort of a multimedia Palm Pilot on your computer screen. Open up its distinctive round icon and you've got a notebook-shaped window that can personalize and store all kinds of information—music, video or text. It's easy to download and manipulate data from the Internet or a CD with just the drag of a mouse. The info wallet comes minimally formatted, but can be customized and serve as a search engine, an organizer, an address book, a Rolodex, a calendar and a program manager.

You can duplicate Buzzy as many times as you want and send it to friends. It's stored on your PC. The feature is free to Web users—and, as Gerry Laybourne points out, a potentially huge draw for advertisers. Assuming Oxygen can overcome users' privacy concerns, the info wallet could be exploited by advertisers for an unusual array of narrowcast pitches. A small step on the long and rocky road to convergence.

How soon will the Web blend seamlessly into the television? What will the fused medium look like? Laybourne is too cautious to predict. "If you ask me what makes me nervous, it's that the world's eyes are on us and expect us to create miracles right away," she says. "We can't." That's more honesty than you'll get from most digital visionaries. ■

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A shakeout was supposed to thin the ranks of Internet providers. So how come thousands of little ones are proliferating?

Mom and POPs thrive...

By Seth Lubove and Anne Linsmayer

DAVID HILDS

Fledgling ISP mogul George Peace and wife, Christine **Milking the Net.**

TIRED OF THE corporate life, George Peace quit his job at Unisys Corp. three years ago to live on his farm near Harrisburg, Pa. But rather than milk cows, he set up a server and some modems in a spare bedroom, leased two lines from the local phone company and pronounced himself an Internet service provider.

Today, Peace's Pennsylvania Online, started on $60,000, boasts 750 phone lines and 7,500 customers, charging them $10 a month for the first 50 hours. "We're living well off of it and building our retirement nest egg," he says. The business has since outgrown the bedroom and moved to a converted corn crib.

Small-timers like George Peace were supposed to have been road kill by now in the $10.7-billion-a-year access business, crushed by the regional Bell companies and Internet behemoths such as America Online and Microsoft. Instead, thousands of mom-and-pop ISPs are driving much of the growth in the business.

All told, the total number of ISPs has grown from about 1,500 in 1996 to more than 6,500 by some estimates; 96% of the U.S. now has access to at least four providers, with dozens of choices in larger cities.

Plucky smaller players (and nascent cable firms) have almost doubled their market share to just shy of 16% in two years. The share held by the giants—AOL and Microsoft, mostly—has slipped 11 points, to 56% by late last year, says International Data Corp. The Baby Bells' share is a tepid 3.5%.

So bigger isn't necessarily better. Many Net surfers, especially those in small towns, appreciate the friendlier service and hand-holding of smaller firms. David Kraft, a director at the Country Meadows chain of retirement homes in Hershey, Pa., turned to Peace's Internet service after getting the cold shoulder from bigger firms. He wanted help erecting a new Web page.

"George immediately invited us over for cookies and milk," Kraft says. "Once we left, he called before we were even back to the office and had a page up for us. We were floored."

Clairetta Anderson of St. Paul, Minn. was told her local Bell, U S West, would need at least a week to sign her up. So she chose Twin Cities Internet, a hometown ISP started by two former Las Vegas card dealers. "I call them day or night, any hour," she says; they even made a house call.

Says cofounder Michael O'Sullivan: "We had providers that were awful and said, 'We can do this.'"

With a little technical know-how, a server or two and some leased high-speed lines from the phone company, anybody can take on the telcos. You ca even buy an "ISP in a box" starting $4,000 from Quad Research of Rive side, Calif.

"The big boys don't bother me says Richard Monosson of Instar Internet Corp. in Woodland Hill Calif. His real fear: "The 14-year-ol kid down the block. A lot call them selves consultants and even have the own Web-posting services."

Maria and Brian Wells of Rich mond, Mich. sold the cars and b their savings to start Klondyke Online Services; Maria even quit h job. They now have close to 1,40

Klondyke.net proprietors Brian and Maria Wells with their loyal mascot **Digital dogs.**

istomers at $20 a month for unlimed service in two local areas, or POPs points of presence). Extra revenue omes in from designing Web pages or local businesses.

Like a lot of smaller ISPs, their service is also the town bulletin board. When Richard Sansone posted a message a few months ago that his neighor's dogs, Luke and Lulu, were missng, another neighbor responded that e'd found them. Adding to the omey touch, the Wellses' Web page cons depict the family basset hound, chicken and a pot-bellied pig.

As the mom-and-pops proliferate, he dollars trickle upward. Some telcos won't carry data traffic from the tiny outfits unless they pay a fee, but PSINet Inc., a big Internet "backbone" operator that fled the consumer market to serve business clients, does it free of charge. It aims to sell them other services and generate more traffic on its own lines.

"Why shouldn't we serve them well? All the phone companies are going out of their way to kill them. We want them to bring more customers to our network," says PSINet Chairman William Schrader. He figures the number of ISPs can rise fivefold in five years.

Others see new ways to make a buck off the small providers. Several companies have formed to go on a buyout binge. Among them: glib "roll-up" promoter Jonathan Ledecky, who spliced together 230 companies in four years to create $2.6 billion (sales) U.S. Office Products.

His latest venture: OneMain.com. A prospectus attempting to raise $113 million in a public offering says the Southampton, N.Y. company will start off with 17 newly acquired smallish ISPs and buy several more in rural or suburban areas. "We expect our business to grow rapidly," the document notes confidently.

The question is whether the little guys will even need a buyout. "We are an extremely profitable ISP," says Jason Simonds, cofounder of Maine-based Midcoast Internet Solutions. "I don't understand how anyone can't make money at this." ■

Most of PSINet's big rivals have sold out. The Internet access provider may soon join them.

...as a big guy mulls its fate

By Nikhil Hutheesing

WILLIAM L. SCHRADER is a holdout. He founded Internet service provider PSINet in 1989, took it public six years later and built it into a powerhouse on a string of debt-laden acquisitions.

While his like-sized rivals—Uunet, Netcom, Digex—all faded into bigger acquirers, Schrader went it alone. Along the way he took shareholders on a wild ride. PSINet's stock price almost doubled, to $28.50, in its first year, plunged 75% in the next year and a half—and roared back up fivefold to an alltime high, trading above $35 lately. Whew.

Now Schrader has a new corkscrew twist for his investors: The last of the independents is in talks to sell out. The identity of his suitor couldn't be learned, but even if PSINet doesn't get bought this time around, its future as the property of some bigger bidder seems almost inevitable.

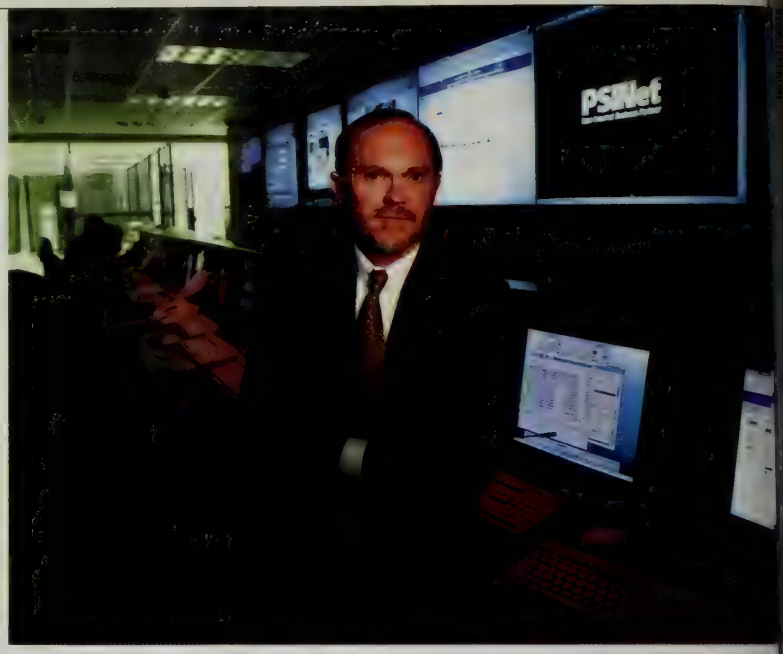
Selling out would be a bit of a letdown for Schrader. The PSINet chief executive, 47, is an intense and competitive man who shoots pistols at a local firing range and roars around on his Harley-Davidsons near PSINet's base in Herndon, Va. Easing the pain, Schrader has an 11% stake worth $200 million or more.

PSINet's plausible fate as someone else's subsidiary owes in part to the fact that, like other major players before it, PSINet has leveraged itself to the hilt—it has $120 million in debt and nearly $1 billion in junk bonds. Interest payments, at $62 million last year, or about 25% of revenue, are expected to double this year; earnings are nonexistent.

But PSINet also is takeover bait because of the enviable assets that Schrader built on all that debt: its very own fiber network. PSINet has committed to spend almost half a billion dollars to buy 80,000 miles of fiber-optic cable in just the past two years (half of it in undersea cable). While big phone companies have old networks that use an inefficient design for transmitting data (circuit switching), PSINet's system uses the Internet Protocol to chop voice and data into little packets, send them along various lines and reassemble them at their

destination(packet switching).

That lets PSINet zap far more traffic along the same lanes, allowing it to offer businesses videoconferencing and other high-bandwidth services and lease out excess capacity to rivals. Some 168 ISPs provide 12% of PSINet's $250 million a year in sales.



PSINet's Willliam Schrader **Building a huge network with an eye to selling it.**

"Economics 101 says buy fiber, because the cost of owning fiber today is one-tenth the cost of renting it," Schrader says. It also means, however, that the slightest mistake in predicting demand could be fatal.

A fiber-building binge is under way by Qwest, Level 3, IXC Communications and others. Capacity is likely to soar a hundredfold in just four years, leading to a glut if demand doesn't explode accordingly. Prices—and the value of fiber—might plunge.

But Schrader says his Internet design will let him undercut the telcos, steal their customers and make up in volume whatever he loses on price.

Schrader has always bet on bandwidth. Before forming PSINet, he ran supercomputer centers at Syracuse University and Cornell. In 1985 he helped found a New York networking service. There he oversaw the creation of a fiber backbone linking 15 such labs. He also soon realized that businesses were eager to jump on board the Internet.

So in 1989 he founded Performance Systems International. Later renamed PSINet, it offered U.S. customers Internet access for $19.95 a month. But Schrader bailed out of the consumer market in September 1996 to focus on businesses. Investors lost faith, and PSINet's stock stumbled for much of 1997, losing more than half of its value for the year.

In late 1997 Schrader began acquiring ISPs. Since then he has spent $290 million in cash to buy 18 ISPs; PSINet is now one of the top three providers in Canada, Britain, Korea and Japan. Last year Schrader starte taking on debt to buy fiber network

These days PSINet has thousanc of corporate accounts, which pay a average of $500 a month for Inte net access—at 1.4 billion bits p second—as well as web hostin security and other services. It ha created ravenszone.net, an ISP fc fans of the Baltimore Ravens foo ball team, which will launch i April. Subscribers will get to watc on-line press conferences and cha up players on-line.

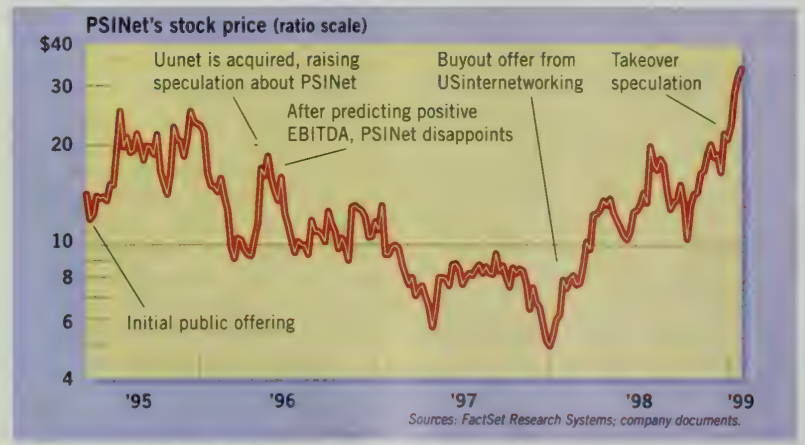
Even so, PSINet keeps losin money—a cumulative $340 millio since its IPO in May 1995. Schrade hasn't yet delivered on his promise t Wall Street to eke out some operatin income (earnings before interest, taxes depreciation and amortization); h promises to do so by June.

If only for the sake of his bargainin position, Schrader sturdily maintain that he can go it alone if need be. H has always said he is willing to sell, bu only if the price is right.

"Think of us as having geneticall engineered a stable of racehorses," h says. "They run 15 lengths faster tha any other horses. Since we haven' raced yet, outsiders offer to buy ou horse stable for the cost of the barn That's not good enough."

Our prediction: He's going to driv a hard bargain, but he is definitel going to sell.

Wild ride



Red ink matters little once takeover rumors start to fly.

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A young scion of the German family that controls A&P thinks he can turn the chain around. But what does he know about U.S. grocery retailing?

Prosperity around the corner?

By Justin Doebele

CHARLIE POWELL

CHRISTIAN HAUB'S family is worth $5.5 billion, but he wants you to think he's just one of the guys. Named chief executive of the Haub-controlled grocery chain Great Atlantic & Pacific Tea Co. nine months ago, Haub insists on talking to FORBES not in the executive offices in Montvale, N.J., but in the employee lounge of a nearby A&P grocery store.

The room is sparse, just laminated tables and metal chairs bolted to the floor. Drinking the company's signature "Eight O'Clock" coffee from a Styrofoam cup, Haub enthuses: "This is the most exciting period in my entire time with the company."

A&P needs a little excitement. The $10.3 billion (sales) company is one of the proudest old names in American retailing—but one that has been stagnating for years. Many of its about 900 stores are old ones stuck in mature markets with high taxes, onerous zoning and entrenched unions.

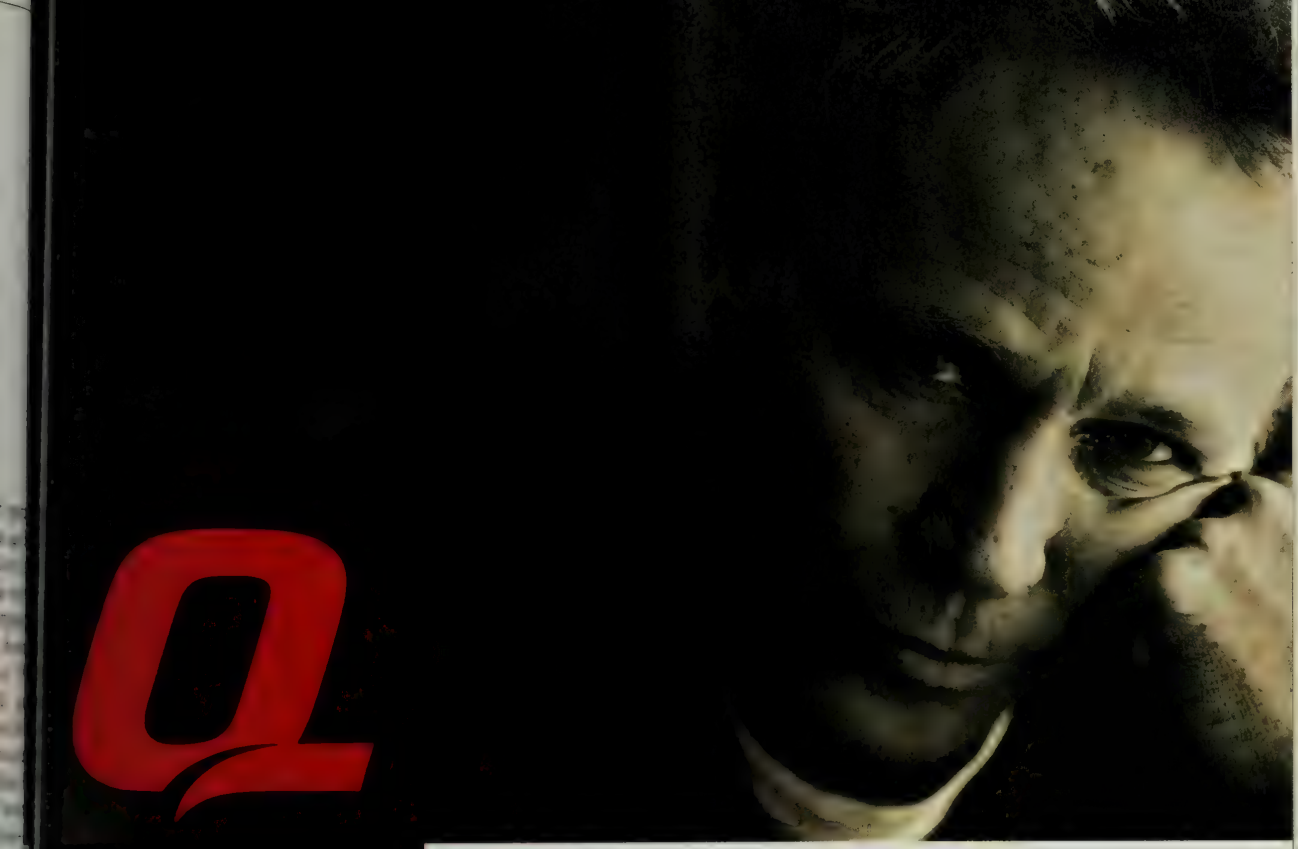
Haub's father, Erivan Haub, head of Germany's privately owned Tengelmann Group, bought 53% of A&P in 1979 for $125 million from the founding Hartford family. Today, with A&P stock at $33 a share, Tengelmann's stake is worth about $670 million—that's a compound annual growth of barely 9%, as against 14% for the S&P 500 index.

Christian Haub, at 34 the second-youngest chief executive of a big U.S. company (after Michael Dell), comes to his job after three years as a general financial analyst with Wall Street's Dillon, Read and Global Reach. He joined A&P in 1991 and was named by his father as chief operati officer in 1993, at age 29

His participation in t management has not y energized the company. financials appear frozen a time warp since 199 sales unchanged; asse unchanged at about $3 b lion; liabilities unchang at not quite $1 billion. N income has hover around $64 million—2 cents on either side $1.70 a share for the la three years. Last year it w $1.65 a share. The stoc price has remained stuck i a narrow trading ban around $27 since lat 1991 *(see chart, p. 126)*.

Haub explains his com pany's mediocre record the consequence of simpl neglect. When the Berli Wall fell in 1989, his fathe decided to exploit a once in-a-lifetime opportunit for Tengelmann, Ger many's fourth-largest reta chain, to open stores i East Germany. Thus, whil other chains like th Dutch-based Ahold went on a U.S buying spree and Wal-Mart move into the food business, A&P manage ment sat on its hands. But, say Haub, "Now that [eastern European effort is complete, and the focus o North America has returned."

All the raw ingredients for a strong revival are certainly there: The com pany has 140 years of history, Eas Coast brand-name recognition and



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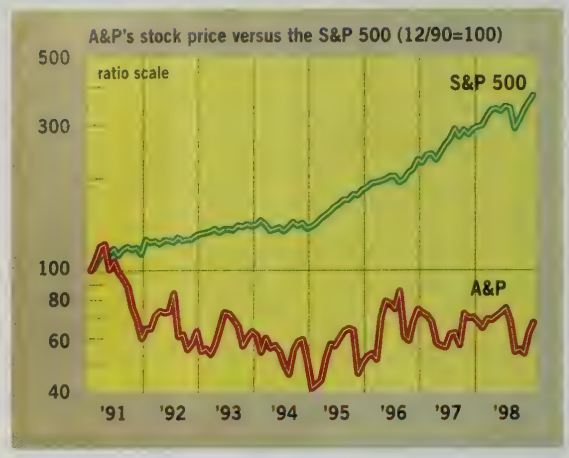


Stagnant since late 1991, A&P stock has missed the decade's market run.

healthy balance sheet, with debt just 50% of A&P's total capital. But Wall Street evidently expects little excitement from the Haubs. The company's enterprise value—debt plus market value of common stock—is a mere $2.1 billion. That is scarcely five times A&P's estimated 1998 operating income (net before depreciation, interest and taxes). The corresponding ratio for Kroger: 17.

Investors have reason to feel disillusioned about A&P. For most of the 1990s Christian Haub's predecessor, James Wood, who once ran the Grand Union supermarket chain for the late Sir James Goldsmith, made any number of grand turnaround announcements, only to let them fail or peter out on poor investment decisions. An expensive push into the Canadian market in the early 1990s, for example, unhappily coincided with a slump in the Canadian economy.

Haub knows he has a mountain of skepticism to overcome. "We are not saying, 'Trust us.' We will *show* you," he says. "The only change that matters now is results."

But is Haub the man to produce those results? Is his father the man to demand them? "They had an opportunity to be a big player," says Neil Stern, a partner with the Chicago-based supermarket consultancy McMillan/Doolittle, "but they have never acted like one." Indeed, they are missing the consolidation wave in the business. Last year Kroger Co. took over the Fred Meyer chain in a $13 billion deal, creating a national giant with $43 billion in sales—four times the size of A&P. As a result, Kroger will be able to negotiate better deals with suppliers than A&P can.

Asked to name his most significant accomplishment after nine months on the job, Haub hesitates and then offers: "Getting the company to realize that significant change is necessary to improve performance."

As proof, Haub points to a strategic plan unveiled two months ago. But it is pretty thin gruel. It boils down to opening new stores faster, closing stores and making "productivi improvements." Yes, A&P may open stores this year instead of 50. The cor pany wants to close 127 stores th year. That's a big step up from 74 la year, but it's also a long overdue mov Productivity improvements? Haub sa he wants to close unneeded distrib tion centers. But with six main marke and eight distribution centers, at mo he can cut two. American Stores, chain of 1,500 stores, opened acquired 96 new stores and closed sold 68 stores last year, before it w bought by Albertson's.

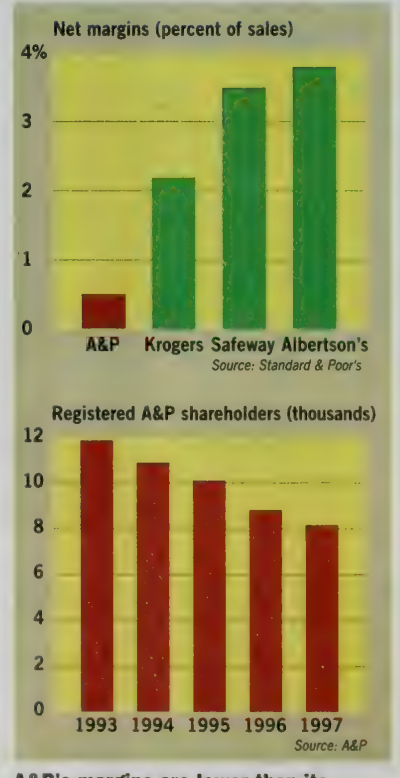
Haub aims to double sales, to $2 billion, in five years. That is going t be tough to do. Retail giant Wa Mart has been applying all it know about retailing to the supermark business. Last year its SuperCenters– combination supermarket and dis count stores—sold $32 billion of gr ceries and other goods, making it th third-largest food retailer aft Kroger/Fred Meyer and Albertson's As late as 1994, A&P ranked 7th i the country. This year, it slipped t number 11, according to *Supermar ket News'* list of top retailers an wholesalers.

Given the slim 2% to 3% net profi margin typical of the grocery busines chains must move a lot of product t earn decent returns on assets. Well managed Kroger, for example, whic earned around 8% on assets last yea turns over inventory 11 times a yea A&P's inventory turnover is just eight

There certainly isn't much financia incentive for management to make th hard decisions necessary to revive company like A&P. Outside of Jame Wood, the Haub family and their clos associates, company insiders own total of 190,000 shares—half of 1% o all outstanding shares.

Where does A&P fit into a consoli dating industry? The Haubs may d some buying, using A&P's revolving credit line of $500 million or perhap an additional equity contribution from Germany. But a more logical solution might be to sell to a larger chain. Chris tian Haub insists it won't happen. "We are not looking to sell or merge," he says flatly. It might hurt his chances for employment, but for his shareholders' sake he should be a little more open-minded about the possibility.

Bottom of the food chain



A&P's margins are lower than its rivals'; shareholders are bailing out.

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Edited by Laura Saunders

Bulletin to owners of small businesses organized as S corporations: You've been liberated.

Freedom day for small business

IF YOU HAVE a closely held business more than a few years old, there's a good chance it is a Subchapter S corporation. If so, be thankful for what the Internal Revenue Service has done for you. The feds have recently made your life easier.

The S corp was the classic mechanism for getting the limited liability of a corporate structure without incurring corporate tax. In recent years the S format has been largely supplanted, for brand-new businesses, by the so-called limited liability corporation.

But there are still more than 2 million S corps, and many of them will be around for a long while: Moving from the S format to another format can stick owners with a fat tax bill. In addition, the only way for owners of C corporations to escape double tax is to turn them into S corporations.

In 1996 Congress revamped the law on S corporations, but some important changes weren't of much use until the IRS issued regulations defining them last spring.

Since then tax experts have discovered a wealth of opportunities to make life easier for their small-business clients. Here, courtesy of Thomas Ochsenschlager of Grant Thornton's Washington office, are some of the angles.

■ An S corp can now have wholly owned subsidiaries.

Under the old rules, a restaurant owner with five outlets that needed to be legally separate—say, two had liquor licenses and thus different liability issues—might have had to keep them in five separate S corps, with five different tax returns. Now they can be consolidated so that there is one parent and one tax return—but five legally separate subsidiaries. Losses from one subsidiary can be used to offset profits from another.

Look at how this change is helping one Indiana farmer with moneylosing hog farm and a profitable grain elevator. With the two separate S corporations, the farmer couldn't use the losses from the hog farm unless he invested more money in it. That's because the owner of an S corp cannot write off more than his cumulative cash investment in the business. Under the new rules the farmer can make the hog farm a subsidiary of the elevator operation and claim plenty of losses; but if the hog farm goes pork-belly-up, its creditors can't get at the assets of the elevator.

■ S corporations can now have as many as 75 shareholders (15 including spouses), up from 35 (7 including spouses) under the old law. This is very helpful when several families plus a bunch of employees share ownership of a business.

■ An S can now have a tax-exempt entity, such as an employee stock

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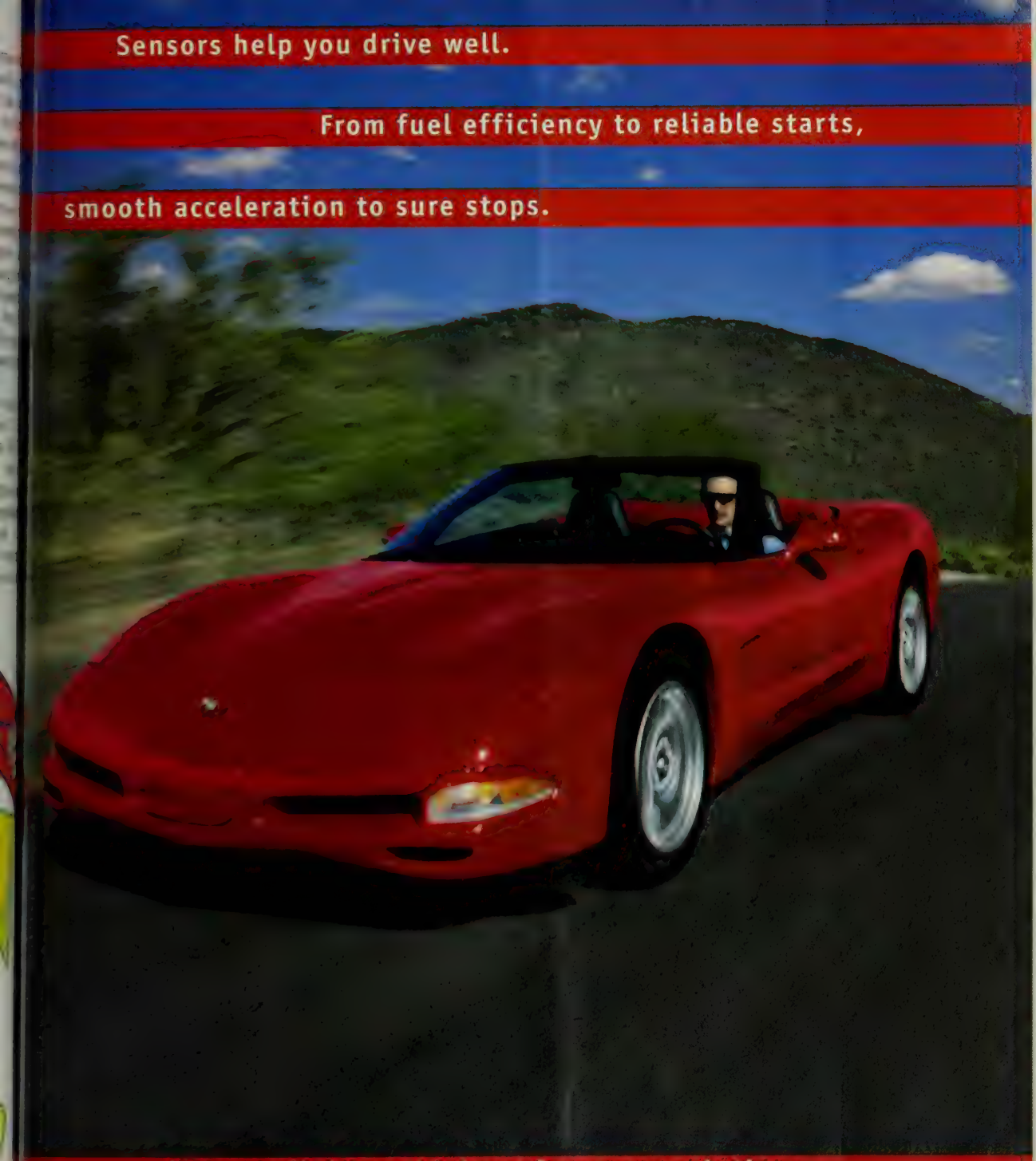

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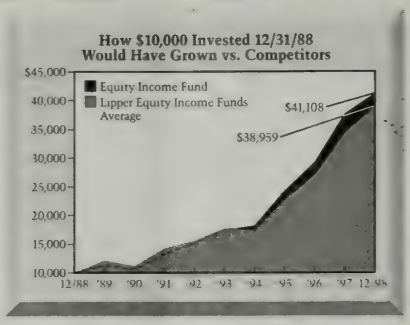

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The new rules on subsidiaries have a quirky loophole that enables an S corp election to work retroactively.

ownership plan or pension plan, a shareholder. A recent Treasury pr posal would, however, repeal this r for ESOPs, because of perceived abu

■ A trust that owns shares in an corp can now have multiple bene ciaries rather than just one. In ad tion, this new type of trust, called "electing small business trust," c both accrue and "sprinkle" income—that is, allocate it uneve ly—neither of which was permitt before. The change makes esta planning far easier for a parent w wants to leave a business to seve children with different needs.

There is a downside. With the n type of trust, the income earned the S is always taxable to the trust, n the beneficiary—with the effect th the tax rate is a little higher, since t brackets for trusts are compressed.

But the flexible trust can ha unexpected benefits. Ochsenschlag recently helped set up a trust sited South Dakota, which has no sta income tax, for an heir who liv next door in high-tax Minnesot Because it's now South Dako income, the heir escapes Minneso taxes on it.

■ The new rules on subsidiaries ha a quirky loophole that enables an election to be retroactive. It often ha pens, says Ochsenschlager, that t owner of a formerly unprofitable corporation (the kind that pays corp rate tax) will see the firm turn a corn and begin earning profits; then he call up saying: "I wish I had conver ed to S at the beginning of the year.

Under the old rules, most owne were stuck if this happened aft Mar. 15. But now there may be a out. If you can acquire an existin S—or even, perhaps, form one—yo may transfer the stock of the C cor to the S corp at any time of the yea make a special election and avoi corporate tax on the profits that a about to arrive. –L.S. ■

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The Web is a powerful tool for digging up dirt on M.D.s and other professionals.

A cybercheck on Dr. X

By Julie Androshick

In December 1997 Lori Rollins had her third child in Indianapolis' Community Hospital. Rollins' uterus ruptured during delivery, and her baby suffered brain damage that ended in his death two-and-a-half months later. Rollins sued the hospital and Dr. Robert J. Morgan, her obstetrician, and is hoping for a settlement (which, under Indiana law, cannot exceed $750,000).

One bad result does not prove a doctor's incompetence, and obstetricians are being sued all the time over delivery problems for which they are in no way responsible. Still, wouldn't you want to know if your obstetrician had been frequently accused of malpractice? The average obstetrician has 2.3 malpractice claims filed against him throughout his career.

Dr. Morgan has been involved in 22 claims, including the one from Lori Rollins, leading to at least $1.5 million in settlements from the Indiana Patient's Compensation Fund. He was cleared in 9 cases and 7 are pending. In 6 cases, the state medical review panels found that Morgan "failed to comply with the appropriate standard of care." In one case an infant died; in four cases an infant was injured; and in one case a woman suffered gynecological injuries from an exam.

"The numbers are irrelevant. There are a lot of guys who have a higher rate than I do," says Morgan. "One of the reasons I have those numbers is because I have had the biggest practice in the state for several years."

Rollins didn't know of her doctor's legal history two years ago, but she could track it easily now. The Web site www.howdyneighbor.com/justicedenied, maintained by an Atlanta, Ind.-based group called Victim's Justice Center, collects information about lawsuits and disciplinary proceedings involving M.D.s in Indiana.

Patients need such databases because they cannot rely on the medical profession to police itself. Of the nation's 757,000 doctors, only 2,000 or so lose their licenses every year. It's pretty hard for a doctor to get a license taken away merely for botch

Ray McEachern
Check his Web site before you choose a doctor in Florida.

ing surgery. Morgan gave up his delivery privileges after Rollins' lawsuit hit the local news media; even now, Morgan performs other procedures in the hospital.

Where do you get the data you want? Begin by skipping the American Medical Association's Web site (www.ama-assn.org). The doctors' union lists only its members' names and medical certifications; you wouldn't know which ones had been charged with malpractice—or ax murder, for that matter.

Much more useful are the sites run by state medical boards and private groups. Massachusetts has the best state site (www.massmed.org): Two years ago it put up every scrap of official information on the state's 17,000 physicians.

Almost as forthcoming are the 15 states—Arizona, California, Colorado, Iowa, Kansas, Maine, Maryland, Massachusetts, Minnesota, North Carolina, Oklahoma, Oregon, Rhode Island, Texas and Vermont—participating in DocFinder (www.docboard.org), which carries reports of all formal disciplinary actions. Massachusetts, Florida and California list malpractice payments in their databases; a few other states plan to do so soon. The rest are standing pat.

Take Indiana, for instance. The state's medical board has no Web site. And although the state's Department of Insurance will tell you about the malpractice judgments if you call, the information is not on its Web site. Which is where Victim's Justice Center weighs in. This 3,000-member group relies on donations and volunteers.

Julie Barnes, 39, of Deltona, Fla., used a similar clearinghouse on bad M.D.s. Over a year ago she was referred to a gynecologist who shows up in the Association for Responsible Medicine site (www.a-r-m.org) with three lawsuits in a two-year period. She found another doctor.

Web databases are powerful tools run by zealous advocates who have had direct experience with malpractice. Debra Dixon, founder of Victim's Justice Center, was herself a victim of malpractice. And Ray McEachern founded the Association for Responsible Medicine after his wife was partially paralyzed from surgery in 1992.

Maybe these sites are a little bit too powerful. What's to protect doctors from the wide publication of unfounded charges? What's to protect them from strike suits by tort lawyers? A lawyer with a weak malpractice case might be in a position to blackmail a doctor into a quiet out-of-court settlement as the price for not filing the case where it can be picked up in a database.

And says Dr. Dan J. Tennenhouse, a lecturer on legal medicine at the University of California, San Francisco Medical Center: "Many of these databases list settlements that are misleadingly read as presumptions of negligence. If the Web sites are reporting settlements, this can be just as damaging to a doctor's reputation as a judgment. This would prompt some doctors not to settle and to engage in protracted litigation."

Such concerns haven't stopped McEachern from linking his Web site to the Florida Department of Insurance's Web site list of state doctors with large malpractice settlements. He plans to add a link this year to a list of doctors with criminal histories. McEachern gets his funding from malpractice victims and their lawyers.

There may be revenue in this doctor-checking business. KnowX.com, for instance, will search public records on a doctor for $1 per database. However, if you want to view the documents, there is an extra charge of $15. The database covers lawsuits, judgments and licensing. PatientWatch (www.sfinando@patientwatch.com) checks out a doctor or hospital for $35 a report, and for that you get detailed credentials and disciplinary histories.

McEachern says huge databases are exactly what a patient needs. He cites the example of Henry Saiontz, a neurosurgeon who paid out at least 14 malpractice settlements in West Palm Beach before relinquishing his Florida license a year ago and setting up shop in Baltimore.

Once Florida's verdict came in, the Maryland medical board revoked Saiontz' surgery privileges. Yet he retains his medical license under probation, and thus could practice surgery in another state.

The accompanying table lists Web sites that track disciplinary records on a variety of professionals. But bear in mind that this is a fairly new application of the Web, so you can't expect a database that is both national in scope and highly accurate.

Trust, but verify

You can check out a lawyer or landlord at the first site or pay one of the three others to do it for you.

The National Center for State Courts
www.ncsc.dni.us/ncsc.htm

ATT Investigations
www.attloss.com/license.htm

National Data Research
search-ndr.com/history.htm

ABC Reports
www.abcreports.com/index.htm

By Cynthia Robbins-Roth

Cancer, asthma and DNA

Zinc fingers could be used to crank up the protein production of a gene or shut it down.

THE HUMAN GENOME PROJECT, that massive enterprise to sequence the 3 billion letters in the genetic code, promises to generate therapies for such devastating diseases as cancer, allergy and asthma. Before that can happen, though, we must understand what all those genes do. That is the mission of scores of research outfits, among them two intriguing little companies in California, Sangamo BioScience in Richmond and Rigel in Sunnyvale. They are deciphering gene function with the tiniest possible computers: living cells. This "nanobiology" approach is yielding clues that could lead to valuable drugs.

Sangamo was founded by industry veteran Edward Lanphier, who wanted to develop gene-based therapies that didn't infringe on the patents that protected genes whose function was already known. Lanphier connected with researchers—at Johns Hopkins, MIT and elsewhere—who were working on gene expression. "Expression" is the way a cell switches a gene on, so that it makes protein, or switches it off.

These researchers studied molecules called zinc fingers, because of their shape and content. Indeed, like a hand, these fingers grab onto specific DNA sequences within genes in order to make the genes work or stop working. The scientists found a way to custom-design zinc fingers to switch on any gene, even if they didn't know what the gene did.

Sangamo studies such a "mystery gene" by putting tailor-made zinc fingers into different cell types (such as tumor cells, or cells from different organs in the body) or into animals. If the cells act differently, or if the animals get sick, you can use that data to understand the protein that the mystery gene makes.

You can do more than understand—you can also intervene. Zinc fingers could be used as a form of genetic therapy to crank up the protein expression of genes, say in patients suffering from hormone deficiency. Alternatively, they could shut down the expression of errant genes (such as oncogenes, in cancer) or overactive ones (such as the gene for tumor necrosis factor, a cause of inflammation).

Rigel takes a different tack. Rather than begin with a mystery gene and use cells to figure out its function, Rigel makes cells reveal which genes are important. The company was created by Don Payan, a clinical researcher turned biotech entrepreneur, and his colleagues—an impressive bunch of managers who helped build the top-tier firms Genentech, Centocor and Tularik.

Rigel's technology comes from cofounder Gary Nolan, a molecular biologist at Stanford University. He designed tiny delivery vehicles to shuttle thousands of different small proteins—called peptides—into cells involved in such diseases as autoimmunity and cancer.

The company can screen 60,000 cells per second for the handful that have responded to a peptide. Usually this response shows up in a change in shape or behavior. Next, Rigel's scientists fish out the peptide responsible for the changes and find which protein that peptide sticks to. Then they identify what *that* protein sticks to, continuing until they have pieced together the entire chain of reactions that makes the cell respond as it does.

Rigel is identifying the proteins involved in asthma, allergy, immune disorders and cancer. It will then use these cellular techniques to design drugs for those disorders.

Rigel and Sangamo are particularly attractive investments because they don't stake everything on one roll of the dice. They aim to generate a broad range of product candidates, which they intend to develop through partnerships with larger companies. Sangamo has landed deals with Pfizer, SmithKline Beecham, Millennium and Zeneca that should help those companies find good drug targets among the oceans of unknown gene sequences sitting in their labs. In January Rigel announced its first such deal, a $20 million cancer genomics contract with Janssen Pharmaceutica, a Belgian subsidiary of Johnson & Johnson.

Watch for these companies to move to the forefront when the small-cap market opens up again. ■

Dr. Cynthia Robbins-Roth is a principal of BioVenture Consultants and the editor-in-chief of BioVenture Publishing, San Mateo, Calif. Her book, *Alternative Careers in Science: Leaving the Ivory Tower*, was recently published by Academic Press.

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By Stephen Manes

Time travel for the error-prone

"THIS ONLY IS DENIED TO GOD: the power to undo the past," said the Greek poet Agathon.

Agathon never got his hands on a new $70 program called GoBack from Wild File, Inc. GoBack allows you to resurrect your computer to precisely the state it was in before you made some horrible mistake.

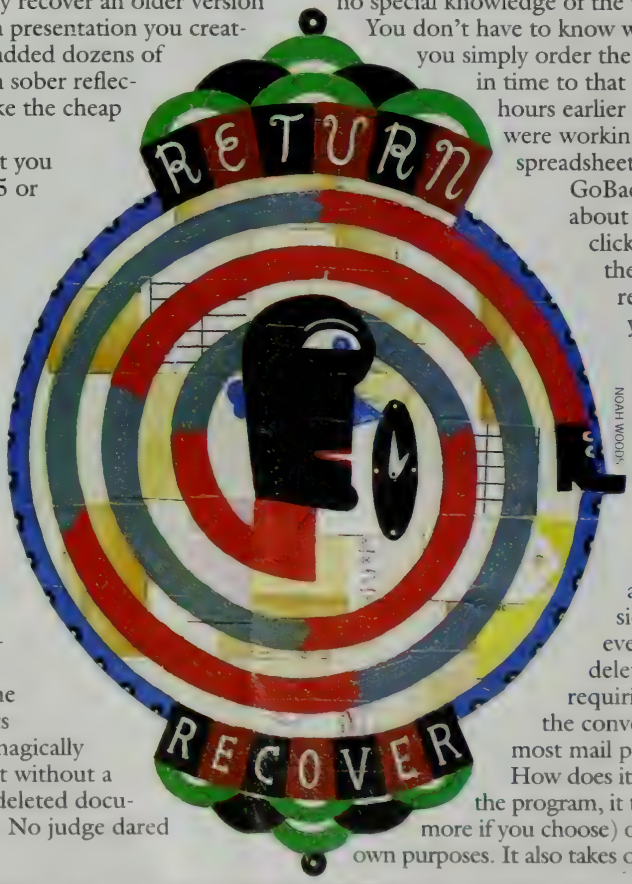
There are plenty of things you can do on a computer that seem as irreversible as a Greek god's fate. Let your kid install the hottest game, and you may find the computer won't boot up. Accidentally overwrite a perfect spreadsheet with blank cells, and the original is likely to be gone. And how can you possibly recover an older version of a presentation you created yesterday before you added dozens of "artistic" touches that on sober reflection look all too much like the cheap clip art they are?

GoBack promises to let you recover your Windows 95 or 98 machine from such calamities and worse. At the recent Showcase 99 conference in San Diego, the company's president, Eric Schneider, triumphed over his session's Gong Show judges by deleting an important document and then laying waste to system files that Windows normally considers essential. Understanding that such vandalism would normally have required reinstalling Windows from the start, the crowd roared its approval when GoBack magically made the machine reboot without a hiccup and restored the deleted document to its original state. No judge dared lift a mallet.

I've now had the sadistic pleasure of trying this at home. After years of dependence on .DLL and .VXD files, I loved being able to kill them, watch the machine issue dire warnings about it, and then use GoBack to set everything right in seconds. For someone whose job is installing and trying new programs, it's a delight to be able to say, "Put the machine back to the way it was before I tried that awful thing," and watch it happen.

You don't have to know what went wrong or why. You simply order the machine to travel back to that golden age a couple of hours ago when things were working fine.

The conceptual genius of GoBack is that it requires no special knowledge of the way computers work. You don't have to know what went wrong or why; you simply order the machine to travel back in time to that golden age a couple of hours earlier when you knew things were working and that missing spreadsheet was still extant.



NOAH WOODS

GoBack is particularly savvy about recovering files. Right-click on a file name, choose the newly added "show revisions" option, and you'll be treated to a file's entire recent history, even if it went by other names or lived in other folders. If you've resaved a file under the same name a dozen separate times in the past few days, you can usually retrieve any or all of the successive versions. And GoBack can even restore individual deleted e-mails without requiring you to understand the convoluted storage schemes most mail programs use.

How does it work? When you install the program, it typically grabs 10% (or more if you choose) of your hard disk for its own purposes. It also takes over the boot process of

Stephen Manes, a computer industry journalist since 1983, is the coauthor of *Gates*, a biography of Microsoft's chairman.

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your hard drive, interposing itself between Windows and the hardware. When the computer sends information to the disk, GoBack diverts it to its own private cache and eventually copies it to its accustomed place on the disk. All this happens in the background as you work; unless you're doing something that keeps the disk extremely busy, your regular programs are slowed by an unnoticeable 5% to 10%.

This puts heavy responsibility on the program to execute correctly. Essentially it's managing your hard drive in the operating system's stead, and awful things could happen if it did the job wrong in the slightest degree. Unfortunately, GoBack's brilliant conception is marred by execution just awkward enough to give you pause.

When I tried version 2.1, it refused to install completely. Upgrading to 2.1a solved that problem. The new version worked well until I tried some tests that involved a simulated power outage. Then the machine refused to boot until I contacted the company's tech support line for help. If I'd been without an emergency Windows boot floppy or a second computer to copy a needed file from the GoBack CD, I would have been out of luck. But the machine did reboot, apparently without loss of data, and Schneider says the problem has been fixed in an even newer release.

He's got a few other things that need to be fixed. GoBack's private data cache can hold a few days' worth of data, but just how many days is something you can learn only by trial and error. Alas, you can't increase the cache without reinstalling the program and temporarily eliminating the possibility of returning to earlier times. Install a program that puts hundreds of megabytes on your drive or use one that changes similar amounts of data—a defragmentation program, for example—and you temporarily minimize or even eliminate your window of recoverability.

GoBack can't restore material you left unsaved at the time of a system crash. It can't yet handle machines that can boot into two different operating systems. And if two versions of a file have been saved and resaved in quick succession, only one may be recoverable.

GoBack's user interface can be a bit confusing, too, until you get the hang of it. Since more bug fixes and improvements are on the way, I would wait at least a month and make certain I have the latest version before committing my data to it. But the program is so uniquely useful that I may well install it on my machines—someday. ■

Web sentry

J.D. KING

IF YOU'RE QUEASY about privacy, check out AtGuard software from WRQ (Version 3, $30). For openers, it can eliminate many annoying ads from Web sites, thereby helping pages look cleaner and display faster. If you're curious about what's being filtered out, you can check a log of addresses; you can add offenders to the list merely by dragging ads to the trash can on the program's "dashboard."

AtGuard also helps neutralize "cookies," those little nuggets of information about your Web history that sites store on your hard drive and use routinely to track your travels. It even blocks "refer fields," which some sites use to see where you've come from.

But ultimately its most useful feature may well be its built-in firewall software, which can stop Internet-based intruders from peeking at your hard drive. AtGuard does this by monitoring the Internet data that your computer sends and receives, blocking transmissions you haven't authorized. This sort of protection will become increasingly necessary as users adopt high-speed, always-on connections that increase the risk of vulnerability to digital marauders.

An always-on connection makes your computer more vulnerable to Net intruders. A firewall can help keep them out.

With your help, the software trains itself as you go along, learning how to distinguish legitimate transmissions from attempts to prey on your personal data. Downside: Until you tame it, the product gets in your face again and again, offering options that only the savviest Web surfers are likely to understand. Since wrong answers may compromise security, users may find that the biggest deficiencies here are in supplying plain-English explanations of firewall protection schemes and good recommendations about how to implement them. –S.M. ■

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Got any kids or grandkids? Redo your estate plan now!

The tuition estate trick

By Janet Novack

JAMES STEINBERG

LAST FALL a 71-year-old midwestern corporate tax lawyer was perusing a Fidelity Investments publication when a new product—a tax-deferred college savings plan that Fidelity runs for New Hampshire—caught his eye.

One detail jumped out: Donors could make tax-free gifts to the plan for children or grandchildren, *but still control the account and even take back the money if they wanted to.*

It scarcely seemed possible. A basic principle of estate tax law says that assets you control at your death go into your estate. These college plans seemed to fly in the face of that principle. You could get money out of your estate now but change your mind later.

The tax lawyer raced to his copy of the Internal Revenue Code. IRC Section 529, and the preliminary IRS regulations clearly permit just what Fidelity was talking about.

In December the attorney and his wife put $700,000 in New Hampshire tax-deferred college accounts—$100,000 for each of seven grandchildren, now aged from 1 to 12. Says the attorney, who asked not to be named, "I've done my due diligence, and this is terrific."

Yes, it is. A year ago FORBES labeled the still-incubating state savings plans the sleeper tax-break of the 1997 tax act (FORBES, *Feb. 9, 1998*). Since then many have hatched, to favorable reviews. But what is still virtually unknown, even among estate-tax experts, is that these plans can provide large estate-tax breaks.

Here's why: Many affluent taxpayers—say, those with net worths between $1 million and $4 million—will leave taxable estates at death subject to rates as high as 55%. Often the easiest way for these folks to whittle down their estates is by making annual gifts to each child and grandchild. A single donor can give up to $10,000 a year and a couple can give up to $20,000 per year to each beneficiary they choose, tax free.

This exclusion would blow a huge hole in the U.S. estate tax but for one thing: Taxpayers are reluctant to make these gifts. Many fear that they will someday need the money themselves. Others, like the midwestern attorney, worry that if they give money to grandchildren through the Uniform Gift to Minors Act, the kids will blow it on cars instead of college.

New federal tax rules now let college plans address these concerns. When you put $10,000 into a college savings account for junior, it is a tax-free, completed gift—meaning that if you die, the money in the account isn't counted in your taxabl estate. Yet so long as yo remain the account' owner, you can chang the beneficiary or eve take the money back—i the state plan permits it

And a lot of state plan do permit it. In a won derful display of federal ism's benefits, the state are falling all over them selves trying to mak their plans attractive t their own residents an in some cases, to out-of staters, too.

In its giant valentin to the education lobb Congress created anoth er goody for affluent tax payers. Normally, gifts t any one person greate than the $10,000 per single/$20,00 per couple limit eat into the lifetim gift tax and estate tax exemption (That exemption, currently $650,00 for you and another $650,000 fo your spouse, is due to rise gradually t $1 million). In addition, if the gift i to a grandchild, the excess cuts int the $1-million-per-grandparent life time exemption from the generation skipping tax.

Not here. With college saving plans each grandparent or parent (o aunt or uncle or godmother) can pu $50,000 into a college savings accoun for a child immediately and have i count as the next five years' $10,00 gifts. Thus the future appreciation o that amount is out of your estate now

(If you die within five years, a pro rated portion is thrown back into you estate. Noting this, our midwestern attorney put each grandchild' $100,000 gift in his wife's name using the gift-splitting technique th IRS allows. As a 69-year-old woma she has a longer life expectancy.)

Once money is in a college savings account, it grows tax-deferred until withdrawn to pay for college tuition, books, room or board. Earnings are then taxed at the student's rate.

What if you decide to yank the money back? You owe income tax on the earnings left after the payment of penalty. But the IRS has allowed states to set the penalty as low as 10% of earnings, and several have.

That's not steep given the tax deferral, says Bernard Kent, a Detroit partner with PricewaterhouseCoopers. He's right. Assume you are in a 50% tax bracket and destined to earn 8% a year, all currently taxable, from your investment. Hang in for a mere seven years and the deferral will more than pay for the penalty. If you assume a higher return, or that your tax bracket will fall in future years, the college plan becomes a winner even more quickly. (Try out your own assumptions at www.forbes.com/college.)

One last, little-known benefit of these accounts: They aren't just for kids. Say you're a 20-something New York single. You can open an account for yourself and claim deductions of $5,000 on your state income tax return. You can use the money for graduate school. If you don't go back to school but do start a family, you can name your child as beneficiary.

There are two hitches to state college savings plans. One is that you can't control how the money in the account is invested. But as the number of plans grows, this matters less. The states are getting competitive with their options. Arizona is even awaiting IRS approval of a plan that among other things lets donors choose, when opening an account, specific funds and allocations.

The other drawback is hard to quantify. There is some risk that after you have sunk your money in, Congress let you leave money in the account growing tax-deferred, for the same beneficiary, indefinitely. He or she can use it for graduate school. Or the assets can eventually be rolled over to the beneficiary's children—without loss of deferral. This counts as a gift from the first beneficiary to his child, thus no generation-skipping tax.

Another alternative: Six of the eight plans (exceptions: New Hampshire and Delaware) let you transfer ownership of the account to an over-18 beneficiary at your death. As owner, the beneficiary can take money out for any purpose by paying the 10% earnings penalty and taxes on the earnings at his own rate.

What if your plan turns in a disappointing performance or jacks up the fees? It may be possible to switch to another state's plan. First, make sure you have this exit privilege. Next, to avoid federal tax on the rollover, you must change the beneficiary of the account. (Some states are lobbying to get this federal rule changed so you can switch without changing beneficiaries.)

If you can stand the paperwork, diversify. Buy into a few plans. There is now no IRS limit on how much you can contribute using multiple plans. So you can fund graduate school, too, if you care to. –J.N.

Roaming

THERE MAY BE a compelling reason to stay close to home when you shop for a tuition savings plan. Some states give a tax deduction for money invested in a plan; others give a break to money on the way out. New York gives both: Couples can deduct contributions of up to $10,000 per year, and when money is withdrawn for college expenses, it's not taxed by the state. Also check to make sure that your state recognizes the tax deferral of rival states' plans.

But if these inhibitions don't apply, shop around. The eight state plans in this table are happy to take money from out-of-staters. None charges a penalty if your beneficiary attends school in another state. What if a child wins a scholarship, drops out or goes to a cheap school? Take back the cash and pay the taxes and any penalties. (There's no penalty if the money is withdrawn because of a scholarship.) But that puts money back in your estate. You can also change the beneficiary to another child, unless his accounts are already fully funded.

Here it is crucial to read a plan's fine print. Most plans in our table (exceptions: Indiana and Montana)

Summa cum laude savings

State	Maximum contribution per beneficiary	Penalty for nonqualified withdrawal	Annual fees (% of assets)	Investment manager	Allows transfer to another plan?	Allocation for 10-year-old equities/bonds/mm funds
Conn/RI	$150,000	15% of earnings	1.55%	JP Morgan, Montgomery Asset	yes	60%/40%/0%[4]
Del/NH	116,120/105,545	10	1.00	Fidelity	yes	62/33.5/4.5[4]
Indiana	34,405 in first year[1]	10	1.75	Banc One	not decided	80/20/0[4]
Iowa	2,000 per year[2]	10	0.31	State treasurer[3]	no	60/40/0[4]
Montana	176,440	10	none	College Savings Bank	yes	FDIC insured CDs[5]
New York	100,000	10	0.65	TIAA-CREF	yes	30/70/0[4]

[1]$9,405 per year in subsequent years, $100,000 limit. [2]From each contributor, increase under consideration. [3]Treasurer currently invests in Vanguard Life Strategies Portfolio.
[4]Age-based asset allocation; more aggressive for younger beneficiaries. [5]Return pegged to college cost increases; minimum 4% annual yield.

By the end of the year even more states will be offering competitive plans.

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What about the other freaks for college?

A child can't get both a savings plan and education IRA contributions the same year, even if different people contribute. As the annual limit for an education IRA is $500, a state plan is usually better.

If Johnny's tuition is paid from a state plan, his parents can take the $1,500-a-year Hope or $1,000-a-year Lifetime Learning tax credits—even if grandma funded the plan. Families earning more than $100,000 don't qualify for the credits, but a child may be able to claim a credit himself if he isn't his parents' dependent (FORBES, *Feb. 2, 1998*).

It's unclear how college savings plans will be treated in government and private college-aid formulas. As of now, a plan owned by a grandparent isn't counted. An account owned by parents is counted as nonretirement savings. Note: Most colleges don't expect you to dig into your 401(k) or IRA.

College-aid formulas could change to penalize parents who put money in state accounts rather than in fully taxable investments. But if your income is above $125,000, you probably won't get aid anyway, unless you have several children in expensive colleges.

- Grandparents can still pay tuition (but not room and board) directly to a school, free of gift tax.
- You can roll an existing Uniform Gifts to Minors Act account into many state savings plans. –J.N.

will double-cross you with a change in the tax laws. For example, it could impose an additional federal penalty on withdrawals not used for college.

On the other hand, these plans might get even better; the states are lobbying to make withdrawals for education federally tax exempt.

So despite their complexity, these plans are worth a close look. Fees are in some cases high (in Indiana's case, outlandish), but competition may bring them down.

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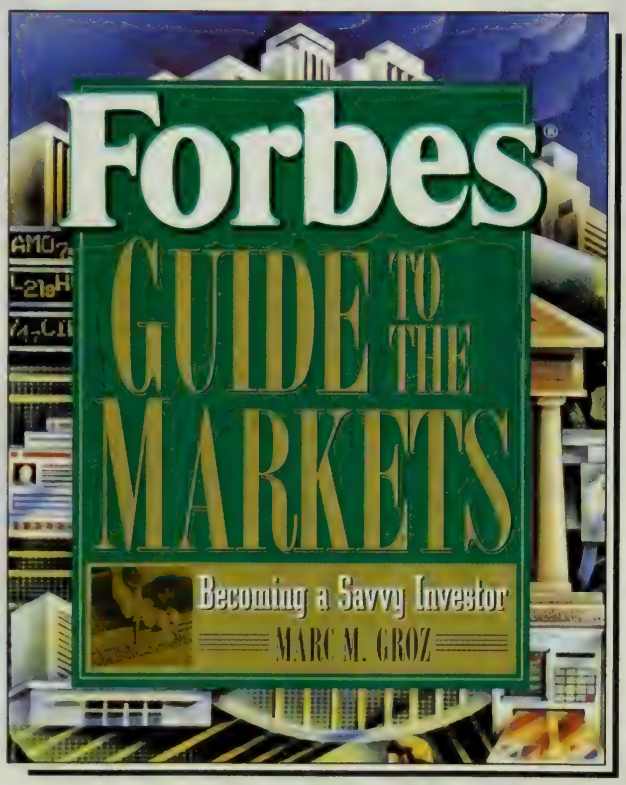

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By A. Gary Shilling

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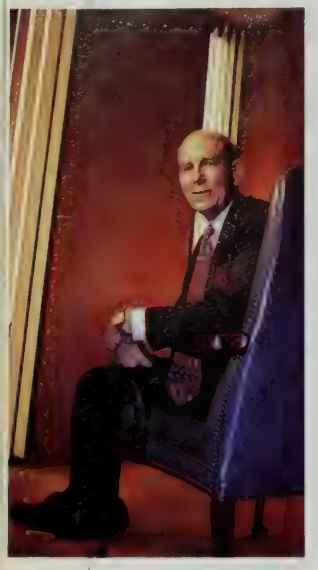

If you had bought a 25-year, zero coupon Treasury when rates peaked in 1981, you would have gained an astounding 75% by mid-1982.

QUICK, which has been the hottest investment since 1982, stocks or Treasury bonds? Surprisingly, the Treasurys have done better, if you bought them in the form of long-maturity zero coupon bonds.

Few investors, I would wager, have any good idea how huge the profits from bonds can be when interest rates are falling. But it's not too late to learn this lesson and put it into practice. If my forecast of deflation and falling interest rates is correct, then you have another chance to beat stocks by owning zero coupon Treasury bonds over the next few years.

To understand the strategy, remember what happened in the 1980s. With soaring inflation, long-term Treasury yields jumped to a peak of 14.7% in September 1981. At that point, investors finally came to expect lower inflation, so they started buying bonds. That pushed yields down (and touched off the bull market in stocks).

Now consider the power of falling interest rates. If rates were to fall, say, one percentage point from current levels, today's 10-year Treasury bond would gain 8% in price. A 20-year bond would gain 12%; a 30-year bond, 17%. A 25-year zero coupon bond, which sells at a discount because it pays interest only when it matures at par, would gain 28%.

If you had bought a 25-year, zero coupon Treasury when rates peaked in 1981, you would have gained an astounding 75% by mid-1982 when stock prices bottomed. But let's assume that your forecasting wasn't perfect and you instead waited to buy zeros until stocks started moving up. If you held each zero until the end of the year, then cashed it in and rolled the proceeds into another bond to maintain a steady, 25-year maturity, you would have gained an average of 24% per year by the end of 1998. Those return figures are based on data from Bianco Research in Barrington, Ill. In contrast, the S&P 500, with dividends reinvested, gained 20% per year over that period.

Of course, long-term zero coupon bonds carry a lot of interest-rate risk; they're volatile both up and down. Twenty-five-year zeros crashed by 22% in 1994's interest rate spike. Indeed, the annual standard deviation of that constant-maturity zero portfolio sin mid-1982 has been a sky-high 35%, nearly triple the standard deviation of the S&P.

My return figures assume that assets are held in a tax-deferred account such as an IR Returns on frequently traded zeros are muc lower in taxable portfolios for two reasons: Appreciation in lieu of interest payments is taxed annually, even if the bonds aren't sold and so is any gain caused by falling interest rates when the bonds are rolled over to maintain long maturities. Zeros work far better in tax-free accounts, and I have used them for years in clients' IRAs and pension portfolios. (You will have to pay trading cos no matter what, of course.)

That's all history. What lies ahead? As regular readers of this column know, I firmly believe we're headed for a time of benign price deflation, propelled by increa ing productivity and the resulting excess supply. The engine of this productivity will be high-tech industries—computers, semiconductors, biotech, telecommunications. Furthermore, with capital and technology freer than ever to roam the world in search of low-cost production sites, the West will continue to export the industrial revolutio and will keep importing the low-cost output. Overall, growth will continue moc erately even as prices decline.

If I'm right, and we soon see deflation o 1% to 2% per year as a steady diet, a target of 3% yields on long-term Treasurys in two years is reasonable. That kind of drop from the current 5% level would pay you 39% on a 30-year coupon bond, plus 10% in intere payments. On a 25-year zero that you roll over every 12 months, you'd gain 75%. Meanwhile, stocks would probably get pounded in the transition to deflation, per haps losing 40% to 50%.

Zero coupon Treasurys are readily available from brokers. I'd go for 25- to 29-yea maturities because 30-year zeros can be erratic when initially created by stripping Treasury coupon bonds. If you want less volatility, you can play a milder version of the same game with shorter-maturity zeros or coupon bonds.

Stay away from zero coupon municipal bonds; bad things could happen to the issuer before that single, final payment. I would also avoid corporate bonds in an economy in transition to deflation—it's no time to bet on credit quality. ■

A. Gary Shilling is president of A. Gary Shilling & Co., economic consultants and investment advisers, which publishes Insight, a monthly newsletter on the bu ness outlook and investment strategy. His latest book is Deflation (Lakeview Publishing, 1998). Web site: www.agaryshilling.com E-mail: shil@ix.netcom.com

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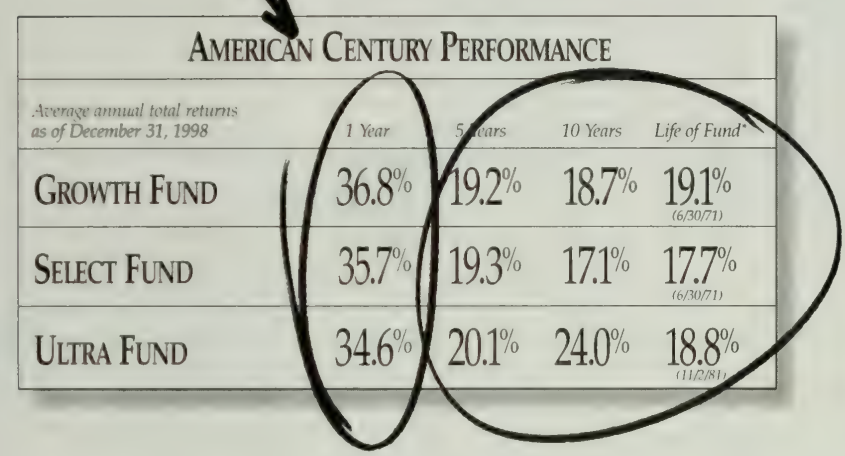

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ULTRA FUND	34.6%	20.1%	24.0%	18.8% (11/2/81)

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By Kenneth L. Fisher

The case against index funds

With 50 stocks, it takes a lot more internal crunching and mental agony to sell out than if you have only one stock, an index fund.

SEVERAL READERS READ my Jan. 25 column "Report Card" and e-mailed asking, "Since this column's 1998 advice only matched the S&P 500's return, why not simply buy an index fund and tune out?"

It depends. An index fund is nothing more than a tool, and isn't inherently good or bad. Like a hammer, it depends on what you use it for and how good you are with it.

Note first, my advice is much more diversified than the S&P 500, which is valuable. Here you get global diversification to reduce risk. Matching the S&P with globalness beats just owning the S&P. You get good U.S. and good foreign returns. If and when the U.S. market lags, S&P 500 index fund holders will be sorry. This column's 1998 advice beat the overall world stock market by more than 4%.

Similarly, the S&P 500 is more specialized and less diversified than you may think. It doesn't act like all stocks, but like a specific subset of U.S. stocks: huge growth stocks. It has an average dollar-weighted market capitalization of $90 billion. That is, it acts like a $90 billion U.S. stock. Huge. And like a growth stock, selling at 8 times book value, 30 times earnings and 3 times sales. The rub? Sometimes huge stocks pay off. Sometimes they don't. Sometimes growth stocks pay off and sometimes they don't. Sometimes U.S. stocks pay off and sometimes they don't. It's not impossible to have a year in which all three factors reverse, and small beats big, value beats growth and overseas markets beat the U.S. market. The S&P 500 is unique enough to be potentially risky, part of why it has done so well.

Then, too, comes behavioral finance with powerful arguments against index funds. If you turn to me, or others, for advice, you must feel some need for advice. There is more than ample evidence that folks who are in need of advice will misuse index funds. They either try to time the market or they panic in a downturn. Index funds are easy to buy and too easy to sell.

If you're a great market timer, which few folks are, then you may well use index funds to buy low and sell high. But normal folks who discover index funds late in a bull market won't use those funds to be long-term investors, even if they think they will. Instead, most of them will sell out late in a bear market, hurting themselves.

People forget that late in a bear market a general consensus builds that stocks will never again be worthwhile. It gets very easy to sell out then, and there is nothing easier to sell than an index fund.

The normal investor's brain works with what behavioralists call "mental accounting." There is a decision "tree" or mental process associated with every single investment you have. If you have 50 stocks, it takes a lot more internal crunching and mental agony to sell out than if you have just one stock, an index fund.

I would hate to see you sell out at the bottom and take a real loss a few years from now. At the right time, I hope to advise you out of stocks. But for now, stick to my basic allocation, which is to be 100% invested in stocks, with 67% of that from among the 30 largest U.S. stocks. The other 33% should be in huge high-quality foreign stocks with a handful of global Japanese exporters. Ones like these:

At 55% of sales and a cheap-by-Japanese-standards P/E of 18, *Sony* (73, SNE, www.sony.com) is a good way to pick up a great consumer products powerhouse. Global diversity, leading brand names, and positions in technologies like DVD, HDTV and MiniDisc, and a game division growing at 50% annually: These all position Sony to prosper in the next century.

Australia's *News Corp.* (30, NWS, www.newscorp.com) is another great global play. You may not appreciate Rupert Murdoch's influence, but if you enjoy Fox, the Los Angeles Dodgers, *TV Guide,* HarperCollins publications, or virtually any news rag in the U.K., News Corp. grabs your attention. So should its value.

Oil prices will eventually rise, following the recent splurge of global money growth. France's *Elf Aquitaine* (55, ELF, www.elf.com) is the world's sixth-largest oil firm, plus, it has high-margin chemicals and specialty products. It also owns a 52% stake in health and beauty concern Sanofi—worth fully one-third of Elf's market value. Sell if it gets to 95 by 2001. ■

Kenneth L. Fisher is a Woodside, Calif.-based money manager. His third book is *100 Minds that Made the Market.* E-mail: kenfisher@fi.com

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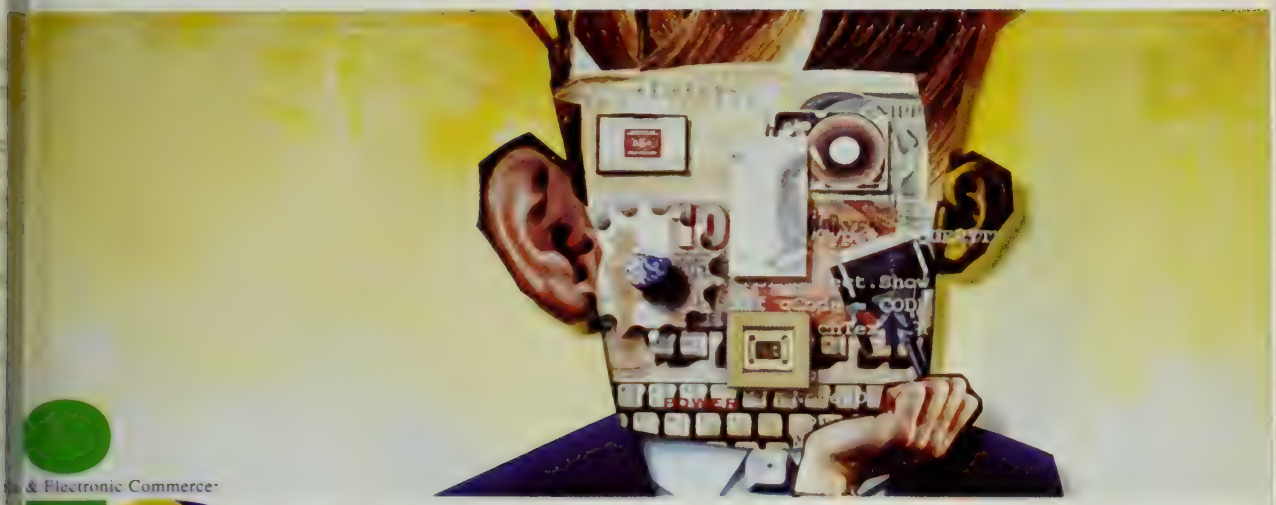

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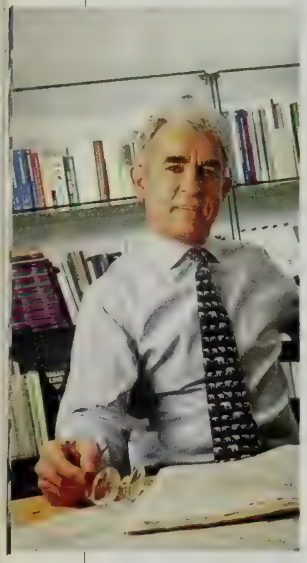
By Laszlo Birinyi Jr.

Whoosh!



The bears say that neophyte investors will scramble at the first hint of a downturn. But it didn't happen during the corrections of the 1950s.

THIS YEAR IS OFF TO A START that makes bungee jumping seem sedentary by comparison. One-hundred-point intraday movements are commonplace. On Jan. 19, for example, the market gained 15 points. But it was up 50 points in the morning, then fell 200 points and then rallied 100 points.

Daily closing charts, therefore, don't do justice to the extremes of the day. In addition, the swings create a great deal of noise. But underneath that noise, I think, the positive trend continues.

My positive view is based primarily on my discipline, which is computer analysis of the tape. Years ago, this was a widely accepted process as investors and stock jockeys sat in boardrooms and watched the ticker tape. Unfortunately, tape watching is impossible today, unless you have a computer do the watching.

The computer tells us that even on bad days there is not that much selling. One example of this was Jan. 14 and 15. The first of those days saw a decline of 228 points, with net selling of $804 million. What this means is that the dollar volume on all downticks was $804 million greater than the dollar volume on upticks. The next day there was a 220-point rally with net buying of $3.9 billion.

But I like the market for other reasons as well. One is the strength in the brokerage stocks, which have rallied sharply and are up 66% since the market bottom last August. Merrill Lynch has gone from 66 to 76; Morgan Stanley from 58 to 88; Charles Schwab from 20 to 70.

Another positive is that the negative arguments are less than convincing. In bull markets, I usually pay more attention to the bears and dissect their views. You will recall that just a few years ago the bears said that the public's buying of mutual funds was a sign of a top, as it was unprecedented, and the neophyte investors would scramble at the first hint of a downturn. But there was a similar interest in funds from 1950 to 1961, during which there were three bear markets against the backdrop of a powerful upward movement. In each of these corrections the public investors bought less, but they continued to buy.

Today the bears argue that a weak economy will result in less than robust earnings growth. The bulls suggest that earnings might slow a bit but they will continue to grow. My view is that it doesn't matter that much. In 1991 earnings of the S&P were down 25% but the market was up 26%, while 1994 saw a 40% increase in earnings but the market made little or no progress. Recently, I ran some statistical tests that looked at the quarterly change in earnings versus the quarterly change in stock prices and found that the correlation was very close to nil. I then lagged the earnings, assuming the stock market anticipated next quarter's, and found the correlation went lower.

Bears are also warning that the market is too dispersed, with too few stocks responsible for the bulk of the gains. Last year the S&P added almost $2 trillion in value, and 20 stocks were responsible for 60% of the gain. The largest contributor was Microsoft, which added $182 billion to the S&P's value.

In contrast, there were 399 initial public offerings last year. Their total gain was $9.7 billion—78% of which was added between the offering price and the first trade.

But while the bears are correct that in fact the gain was accounted for by only a handful of stocks, they are wrong in suggesting this is a negative. In reality, the gain is always in a handful of stocks. The market is not a democracy.

Another bearish argument is that the Internet stocks are indicative of a top. But there have been more signs of a top in this market than Elvis sightings. A while back, for example, the Big Board set a record for the price of a seat and that was supposed to be the sign of a top. The debunked Beardstown ladies' book was just another indication that the end was near. Some end. The market is up 10% since.

So I continue to play the same tune. A few weeks ago I counseled you to stay with *AOL* (now 174, up 28 points since), *Texas Instruments* (97, up 8) and *IBM* (180, off 9) *Pfizer* (123, up 10), *Bristol-Myers Squibb* (130, down 1) and *Wal-Mart* (86, up 5). Stick with them all. Yes, buy and hold is boring. But as I once noted, if it's entertainment you want, go to the movies. ■

Laszlo Birinyi Jr. is president of Birinyi Associates, a Greenwich, Conn.-based financial consulting firm.

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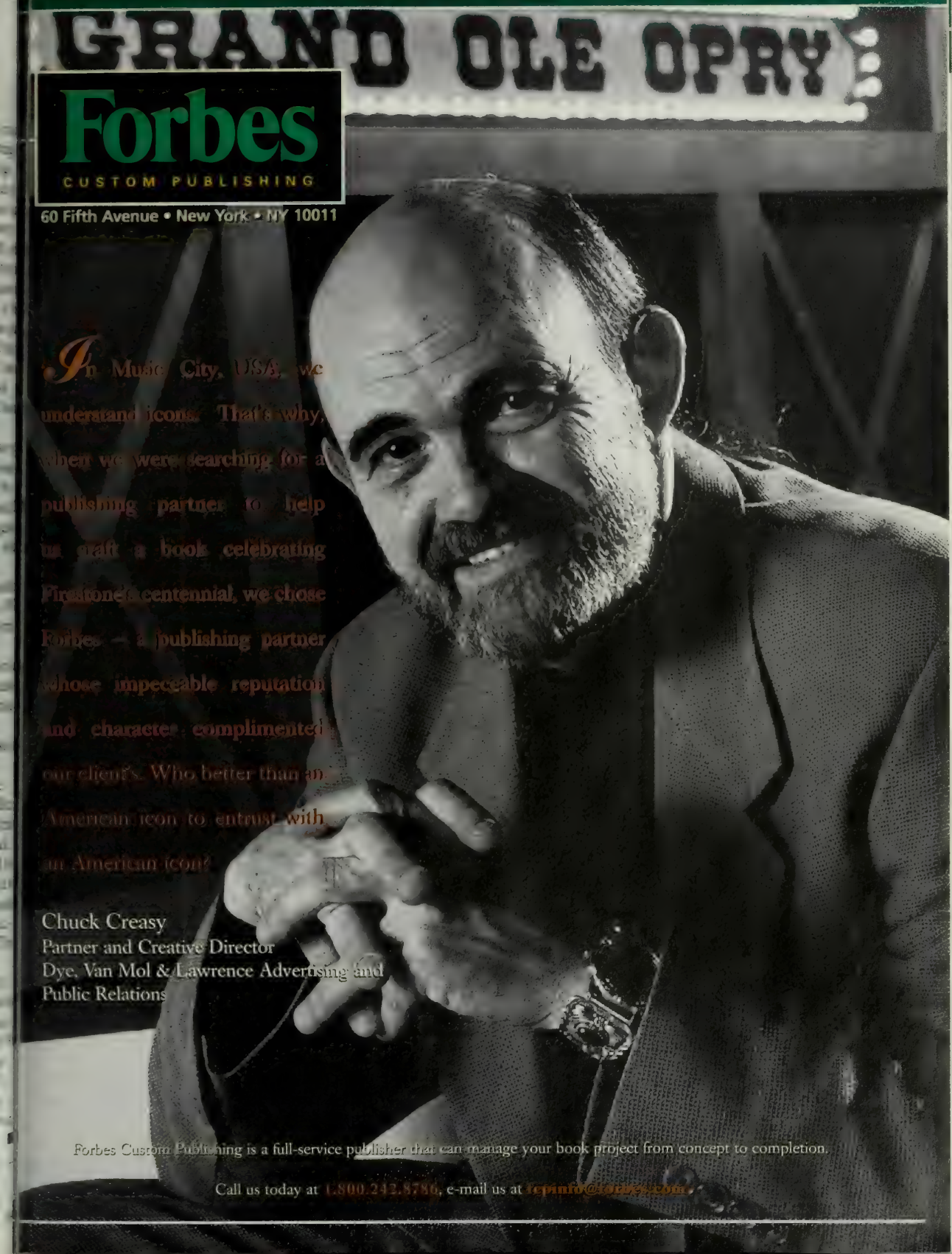

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PEP	PEPSICO INC	13.4203	$497.35	37.0625
PSFT	PEOPLESOFT INC	16	$265.00	17.00
TGM	TRIZON GLOBAL RESTRINC	1	$46.38	46.375
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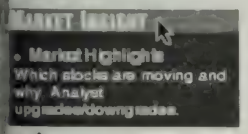
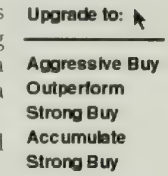
"To be honest, I like to see the market go down a little — it creates terrific opportunities."



"At my age, I won't touch those stocks that jump or fall 30 points in a day — without real earnings. But I did log on to buy a young communication company related to the Internet. I'd researched it on schwab.com's Analyst Center and it shows real earnings. It's rated a strong buy. And the cost was reasonable.



"Today, I bought a multi-national bank stock for my wife's IRA account. I always liked it, and the price came down, temporarily I assume, because of the Brazilian economy.

"On the personal side, we needed a bigger house and saw a great property near the beach. Even with my new 'celebrity' status, the owner wanted confirmation on my financials before he'd take the offer, because a lot of people were interested. I called Schwab's 800 number, it was handled and we got the house. Donna and I celebrated at our favorite restaurant." **HOWARD**

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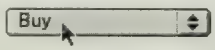

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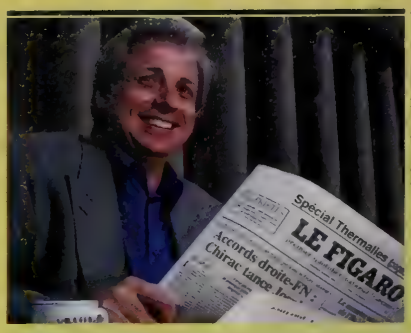
nwide **Charles Schwab**

Edited by Matthew Schifrin

E-warning

YOU CAN'T HAVE WATCHED the Super Bowl or the World Series without catching an ad from on-line brokerage E-trade (Nasdaq: EGRP). In just the last two quarters the company has spent $80 million on marketing. Consequence: E-trade has more than 600,000 accounts and is adding over 1,700 a day, making it third in e-brokerage, behind Fidelity and Charles Schwab.



GARY MATOSO/CONTACT PRESS

E-Trade's head honcho Christos Cotsakos' clients are victims of his success.

But look at the perils of success. Check out Silicon Investor's Web site, which has gripe sessions, running to thousands, filled with complaints about on-line brokers. Many customers complain about waiting weeks for their new accounts to be activated, or being unable to get through on the Web or by telephone. Some even complain of unauthorized stock transactions.

In response, all the brokers are spending more on capacity. E-trade spent some $20 million last quarter a is building a new tech development center in Georgia. But however lavish their investments now, the brokers could be sorely tested in the next market correction.

Buy E-trade? It's too expensive (nine times book value). Short it? Too dangerous. Shorting an Internet stock is like standing in front of a runaway train.

Don't do either. But if you are an o line trader, consider opening up a backup account at a less popular e-brokerage—one yo are likely to get through to in a turbulent market. Juli Gomez of Gomez Advisors in Concord, Mass. recommends Brown & Co., Computel, Wangvest, MrStock and Mydiscountbroker.

–M.S.

Junk mailer

NEWSPAPER INSERTS, direct mail letters—you call them junk, but such marketing efforts are the lucrative business of New York-based Big Flower Holdings (NYSE: BGF). In 1998 Big Flower had operating income (earnings before depreciation, interest and taxes) of $230 million on revenues of $1.7 billion. In 1999 operating income should be up 13%.

Big Flower is the creation of Theodore Ammon, a former partner at leveraged buyout firm Kohlberg Kravis Roberts. He quit KKR in 1993 to open Big Flower when he saw that the ad-insert business was close to recession-proof. He has assembled the business by doing a whirlwind of acquisitions. Big Flower gets 65% of revenues from inserts, 20% from direct mail for credit card companies like MBNA and 18% from a fast-growing digital imaging business, which assists big companies like Wal-Mart and Kraft Foods.

Goldman, Sachs took Big Flower public in November 1995 at $16 a share. The stock got as high as $35 and now sells for around $26. Big Flower is a leader in customizing ad inserts by zip code—say, by leaving the toy advertisements out in a retirement community.

One Big Flower fan is Gregg Hymowitz of New York City asset manager Entrust Capital, which has accumulated a 20% stake. Big Flower trades at 10 times his expectation of $2.70 a share in 1999 cash earnings. Rival Quebecor Printing trades at 15 times. Big Flower is, not surprisingly, heavily leveraged. But operating income covers interest expense 4 times.

–STEPHANE FITCH

Land rush

LAST YEAR'S COLLAPSE in real estate stocks leaves some bargains. Take a look at Newhall Land & Farming Co. (NYSE: NHL), down to a recent $25 from a high of $35 a year ago. Newhall got most of its $64 million, or $1.86 a share, in 1998 net income by selling land and buildings in southern California, not renting space. But these asset sales are a steady affair, and there are a lot more assets where they came from. Newhall still owns 37,000 acres just 30 miles up Interstate 5 from downtown Los Angeles. The holdings include 9,000 undeveloped acres in Valencia, a planned suburb that Newhall has been developing since 1965. Today Valencia has 36,000 residents and 30,000 jobs.

Robert Kirkpatrick of Houston-based hedge fund Breeco Management says Newhall's land and buildings are worth $1.6 billion. But th

Buy Newhall's stock and get suburbia at a discount.

market is valuing the company, including debt, at $1 billion. Main reason for the discrepancy: While real estate stocks were falling last year, housing prices near Los Angeles were going up 10%. Note that Newhall is a limited partnership, so in calculating a breakup value you do not have to allow for corporate capital gain taxes.

–S.F.

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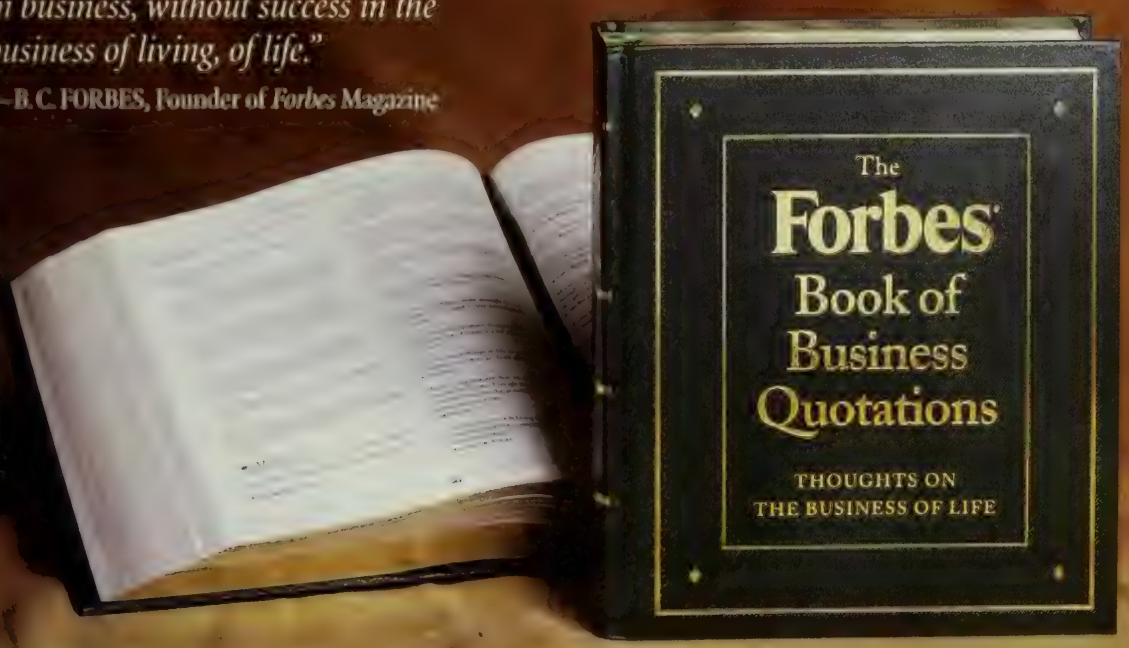

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Issue Date: February 22, 1999

s has not been a bull market for ll-capitalization stocks. Over the 12 months the Russell 2000 fell versus a 31% gain in the S&P 500. ile the small-cap sector is not ap—the Russell 2000 sells for 45 es trailing profits—Tom Barry, tfolio manager at Bjurman Micro- Growth Fund in Los Angeles, s opportunities within this group. ry looks for small-capitalization cks with earnings growth rates her than their estimated price-to- nings ratios. Example: J&J Snack ds (JJSF, $24), which has a five- r annualized earnings growth rate 44% and an estimated 1999 P/E of (based on Barry's 1999 forecast of 43 a share). Another pick is Caere rp. (CAER, $17), which has an nings growth rate of 33% and an imated P/E of 19.

Gas utilities tend to lag bull markets, but offer safety and income during periods of volatility. Michael Heim, utility analyst at A.G. Edwards, says that warm weather reduced 1998 profits of gas firms, but he expects earnings to rebound in 1999. Profits are expected to increase 35%, on average, for the eight utilities below.

Powered by gas

Company	Recent price	EPS growth* '99 vs '98	1999 est P/E
CMS Energy	$42.81	21%	14
CTG Resources	22.63	12	12
KN Energy	19.75	49	12
MCN Energy Gp	17.75	11	12
NUI	22.75	24	12
Oneok	29.25	79	13
South Jersey Inds	25.63	52	13
Wicor	20.06	30	13

*Estimated.
Sources: FactSet Research Systems; IBES Express.

Index or investment	2-week change	% change from 1 year ago	% change from 5-year high
Barra All-US index	2.4%	24.0%	0.0%
S&P/Barra Growth index[1]	5.6	44.4	0.0
S&P/Barra Value index[1]	0.0	16.2	-3.2
Dow Jones industrials	0.2	18.4	-3.0
S&P 500	2.9	30.5	0.0
NYSE	1.2	17.6	-1.7
Nasdaq	6.7	54.7	0.0
PSE Tech 100[2]	5.8	70.3	0.0
EAFE[3]	0.3	12.7	-4.6
CRB futures index[2,4]	-1.6	-19.0	-27.5
Gold[4] (Comex spot)	-0.2	-5.5	-31.0
Yen[3] (per $US)	2.2	-8.3	-21.0
Oil (W Texas Intermediate)	5.1	-26.0	-52.1

Buying	Recent price	Market value ($mil)	1999 EPS[6]	Selling	Recent price	Market value ($mil)	1999 EPS[6]
AnnTaylor Stores[5]	$38.75	$998	$1.69	Dana	$41.13	$6,808	$4.48
Jack Henry & Associates	38.38	762	1.57	GT Interactive Software	5.63	396	0.70
Jabil Circuit	35.72	2,662	1.11	MGM Grand	30.50	1,587	1.52
Rambus	75.13	1,718	0.32	PMI Group	42.88	1,301	6.20
Stewart Information Services	53.50	376	5.45	WinStar Communications	42.94	1,855	-12.53

Best	2-week change	Change since 12/31/98	Worst	2-week change	Change since 12/31/98
Trucking	20.1%	8.6%	Oil refining, distributing	-12.0%	-18.1%
Household products	8.6	9.7	Misc mining metals	-10.1	-10.4
Leisure, luxury	8.6	4.4	Tobacco	-8.8	-8.6
Business services	7.8	10.9	Paper	-7.7	-6.8
Construction	7.6	9.6	Real estate	-5.2	1.9

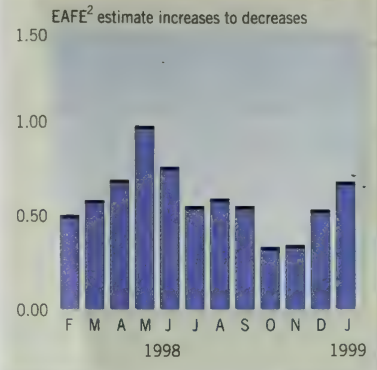
ta for period ending 1/29/99. The Barra All-US price index consists of all publicly traded U.S. common stocks for which price quotations are available and ordinary shares of foreign stocks traded on U.S. markets. ADRs, REITs and closed-end funds are cluded. [1]Total return of more than 150 large-capitalization stocks that have high historical earnings growth and have predicted above-average earnings growth. [2]Total return of more than 300 large-capitalization stocks characterized by low price-to-book os, high yields and low price-to-earnings ratios. [3]A price-weighted index of 100 widely followed U.S. technology stocks. Base value 12/31/82 = 50 (adjusted). [4]A dollar-denominated, capitalization-weighted index of more than 1,100 foreign stocks. Source: organ Stanley Capital International. [5]Index of 21 commodity futures. Source: Bridge-Commodity Research Bureau. [6]Buys and sells are tabulated by fastcheck.com, a proprietary model from the Mutual Discovery Network. For an update on the performance these stocks see our Web site at www.forbes.com/wallstreet. [7]Consensus estimate. [8]Shows return after controlling for other influences, including company size, value and growth characteristics. Multi-industry firms have proportional contributions in o or more groups. *Principal sources: Barra, Inc.; IBES Express.*

The Forbes/IBES Report on Foreign Earnings Estimates

World market valuations

Country	1999 est P/E	Relative to 5-yr avg P/E [1]
Brazil	6	0.5
Russia	3	0.6
Peru	7	0.6
Sri Lanka	5	0.7
Pakistan	6	0.7
S Korea	NM	22.0
Finland	20	1.9
Spain	25	1.8
Greece	17	1.7
Belgium	22	1.6

IBES-estimate revision index



Forecasting the EAFE[2]

Year	Estimated P/E	% change current est vs 3 months ago	Expected year-to-year EPS growth
1998	26.9	–7%	10%
1999	22.4	–5	20
2000	18.9	2	16

1999 country estimates

Rising estimates	Falling estimates
Greece	Indonesia
Hungary	Russia
Israel	Venezuela
Spain	Colombia
Germany	Norway

BY ROBERT J. RYAN

The cheapest international markets are the most dangerous. Stocks in Moscow currently sell at less than three times 1999 estimated earnings and are priced at about 60% of their historical price-to-earnings ratio. "Take these estimated earnings with a grain of salt," says Leila Heckman, managing director of global asset allocation at Salomon Smith Barney. Though perhaps not as precarious as Russia, Brazil looks similarly cheap. Brazilian stocks trade at only six times estimated 1999 earnings. "Brazil could very well be in for more tough times," caution Heckman. "If interest rates stay high, corporate earning would suffer, sending P/Es through the roof."

In contrast, South Korea has the most expensive mark based on estimated 1999 profits—a projected 1999 P/E 609. Nevertheless, Salomon Smith Barney has a strong bu rating on Korea because of the nation's improving macr economic situation. Some well-known Korean stocks d not have sky-high multiples. Example: Pohang Iron Steel sells for only nine times estimated 1999 profits.

Who's hot

Greatest increase in estimates over the past three months

ADR ticker	Company/country	Business	1998 est EPS	1999 EPS estimate recent	1999 EPS estimate 3-month change	P/E	Recent price	3-month price chang
IAM	**Altos Hornos**/Mexico	steel	$0.18	$0.75	53%	6	$4.19	–23%
NTDOY	**Nintendo**/Japan	video games	0.74	0.69	40	17	11.61	7
HMC	**Honda Motor**/Japan	motor vehicles	5.10	4.78	26	16	74.38	17
ASL	**Ashanti Goldfields**/Ghana	gold mining	0.56	0.54	23	16	8.63	0
EKT	**Grupo Elektra**/Mexico	specialty retailing	0.42	0.64	16	7	4.31	8

Who's not

Greatest decrease in estimates over the past three months

ADR ticker	Company/country	Business	1998 est EPS	1999 EPS estimate recent	1999 EPS estimate 3-month change	P/E	Recent price	3-month price chang
PTBRY	**Petrobras Distribuidora**/Brazil	oil & gas distribution	$1.89	$1.85	–42%	2	$3.47	–22%
CEDWY	**Centrais Eletricas**/Brazil	electric utility	5.50	4.92	–41	5	23.30	–54
BB	**Banco BHIF**/Chile	bank	0.98	1.13	–38	7	7.63	–29
BST	**British Steel**/UK	steel	0.37	0.73	–37	30	22.00	26
SNE	**Sony**/Japan	consumer electronics	3.21	2.17	–34	34	73.06	10

Note: Data for period 10/29/98 through 1/29/99. All listed companies trade as American Depositary Receipts. Prices and earnings per share are in U.S. dollars. Earni projections are consensus estimates from Wall Street security analysts compiled by IBES International. Companies listed above have a minimum market capitalization of $1 million. [1]Estimated price earnings ratio for 1999 divided by the average estimated P/E for the last five calendar years. [2]A Morgan Stanley Capital International dol denominated capitalization-weighted index of more than 1,100 foreign stocks.
Source: IBES International.

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On sale in Asia

Will Far Eastern economies come back within a year or two? If you think so, start looking at the cheap stocks there now.

By Robert Cyran

THE ASIAN market meltdown last summer not only hurt overinflated stocks but also took its toll on good, solid companies. And despite a modest comeback from their lows in late August, several markets look cheap. Chinese stocks, for example, are trading at only 10 times their consensus forecast of 1999 earnings (as calculated by IBES Express). The Hong Kong market is going for 14 times the forecast. Contrast the U.S. S&P 500 index, at 25 times the composite forecast of 1999 earnings.

Hong Kong Telecom sells for 13 times its 1999 estimate of $1.42 a share. "The Internet is providing extraordinary growth for Hong Kong Telecom's data services," says Fredson Bowers, a Hong Kong-based analyst for Indosuez WI Carr Securities. "Within the next 18 month such services will contribute more the firm's revenue than cellular standard phone service," he ad Hong Kong Telecom is still tradi near where it was in August, 3 below its five-year high.

Computer users over here are fam iar with Creative Technology, the S gapore-based producer of Sou Blaster audio cards and other perip erals. This firm sells for eig times its 1999 consensus es mate. Creative has stro financials—a 22% return total capital last year, and del to-equity of only 6%. Luc Ward, a Hong Kong-bas analyst for Goldman, Sach has high expectations for t firm's new DVD player a latest sound cards. "The co pany sells over 75% of goods to developed countri and it is sitting on $400 m lion in cash, which equ $4.41 per share," says Ward

The table contains a doz potential Asian bargains f reted out of the Worldsco database. All these compan have positive returns on to capital in the past year a recent prices at substant discounts to their five-ye highs. Most of them have l debt than equity and are ava able as American Deposita Receipts.

BRIAN CRONIN

Tainted blue chips

Company/Industry	Country	Closing price	YTD price change	Return on capital	Debt/ equity	3-year sales growth	1999 EPS estimated	Marke value ($mil
● **Hong Kong Telecom**/telecommunications	Hong Kong	$16.25	–8%	45%	8%	9%	$1.42	$19,35
Creative Technology/computer peripherals	Singapore	14.75	–2	22	6	0	1.85	1,37
ASE Test/commercial services	Taiwan	38.38	19	22	44	39	1.07	1,49
● **Beijing Yanhua Petroleum**/specialty chemicals	China	3.31	–17	12	21	18	NA	22
● **Honda Motor**/motor vehicles	Japan	73.00	9	8	93	0	5.00	35,56
● **Sony**/consumer electronics	Japan	70.44	–2	8	72	3	3.22	28,66
● **Canon**/office equipment	Japan	21.75	1	7	63	3	1.24	18,89
● **Huaneng Power Intl**/utilities	China	10.31	–29	6	97	42	1.65	1,28
● **Macronix Intl**/semiconductors	Taiwan	8.56	9	5	50	16	NA	1,49
● **Toyota Motor**/motor vehicles	Japan	51.50	–3	5	72	–2	1.56	97,95
● **Shanghai Petrochem**/specialty chemicals	China	7.50	–12	4	54	8	1.39	54
● **Pohang Iron & Steel**/steel & iron ore	South Korea	19.31	14	4	121	–12	2.05	7,21

Data for period ending Jan. 27. ● ADR. NA: Not available.

Sources: Worldscopes, Market Guide and IBES, each via FactSet Research Systems.

Asia's economic collapse hurt the stocks of solid companies as well as those of overinflated ones. These underleveraged, profitable firms trade well below their five-year highs.

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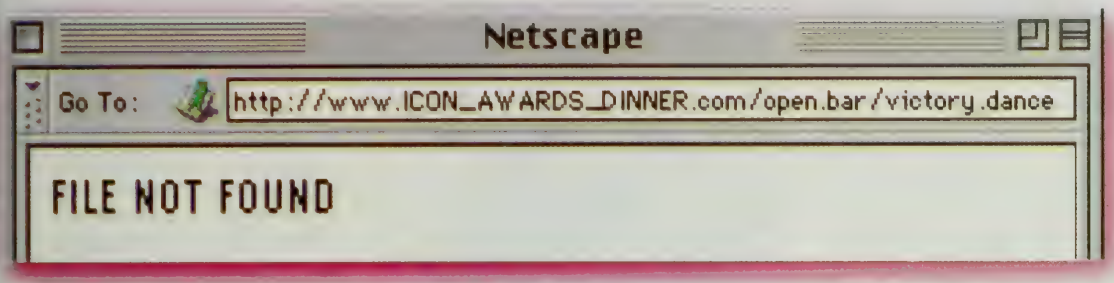

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Focus on the downside

Conventional wisdom equates investment risk with volatility—both the downs and the ups. But why call a fund risky for *making* money?

By James M. Clash

MATT COLLINS

HAVE YOU EVER HEARD anyone complain that a mutual fund was too risky because it made money? Of course not. Yet the most popular measure of fund risk—the variance of monthly returns around a mean—is based equally on how much fund prices rise and how much they fall. That could be a mistake, says Frank Sortino, a former finance professor and an expert on investment risk. And the mistake could lead to bad decisions about how to invest.

The whole point of portfolio selection is to get the most return for any given level of risk. There's almost never any debate about how much return a fund has delivered. But measuring risk is another matter. Experts have come up with at least half a dozen ways to do that, and the results are all over the map.

To see what Sortino doesn't like about variance, let's take a look at what it is. You draw a scatterplot of a fund's month-by-month results over some long period, like a decade. The variance is a measure of how dispersed those numbers are. (Note: Fund-rating services often report "standard deviation." It's just the square root of variance.) A fund that made 1% in March and again in May but 50% in April will have a high variance. In fact, it may come out with a higher figure than another fund that made 28% in March and May but lost 5% in April.

This is silly, says Sortino, whos San Francisco, Calif. company, th Pension Research Institute, deve ops computer models for portfo lio management software. What so scary about making 50% in or month? We should all be s scared. The second fund, thoug does show real evidence of risk ness in its moneylosing month.

That's why *semi*variance, a alternative risk measure alread used by many pension manager is gaining favor at some fund com panies. It isolates the down com ponent of volatility—the losses.

By way of example, consid two well-run, large-compan stock funds. Over the past decad Fidelity's Growth & Income Fun gained an average of 1.6% per mont with a standard deviation of 3.7 per centage points around that mean Meanwhile the T. Rowe Price Capit Appreciation Fund gained a lot les 1% per month, but did so with a lowe monthly standard deviation of 2.2.

Using a well-accepted scoring syste of return-for-risk—the Sharpe rati (named for Nobelist William Sharpe)– Fidelity's seems to be the better fun It churned out 16% more return pe unit of risk. Remember, that compar son is based on the classic definition risk that includes both losses and gain

Sortino, on the other hand, sets benchmark return (based on the typ of investor and fund) and then coun anything below it as a loss. To simpl fy matters, FORBES has set a benc mark of zero. Now focus on thos losses, as measured by semivarianc Substituting that for standard devi tion gives you each fund's Sortin ratio. By this measure, T. Rowe wir handily: Its fund returned 27% mo per unit of risk than Fidelity's. Sna to the real world. In last summer

What kind of risk can you stand?

Fund	Sharpe ratio*	1998 down market return†	Sortino ratio*	10-year total return	Assets ($bil)
Fidelity Blue Chip Growth	1.14	–19.8%	1.15	23.2%	$18.2
Chase Vista Growth & Income	1.13	–21.3	1.17	21.6	1.5
Fidelity Growth & Income	1.13	–18.2	1.10	20.3	46.0
Weitz Series Value	1.04	–12.6	1.25	18.3	1.1
Gateway	1.04	–6.2	1.52	11.1	0.5
T Rowe Price Capital Apprec	0.97	–7.2	1.40	12.9	1.0

Returns are through 12/31/98 and are annualized. Sortino ratio based on monthly negative returns.
*Relative to the S&P 500 index. †From July 17 through Aug. 31.

Source: Kanon Bloch Carré.

Many investors judge a fund by its Sharpe ratio, with a higher ratio indicating better return for risk. But, as the table shows, a higher Sortino ratio—incorporating only downside risk—may be the better guide to performance in a down market.

Along came a SPDR

If you are picky about your sectors, look closely before buying the Amex sector stocks.

By Dolly Setton

AN INTRIGUING NEW PRODUCT from the American Stock Exchange allows you to make sector bets by buying funds that hold fixed portfolios: the Select Sector SPDR (Standard & Poor's Depositary Receipts) funds. These sector Spiders, as they are called, may suit your needs—but before putting in a trade you should check out the portfolios. There will be some surprises.

The Basic Industries Spider holds a huge chunk of Monsanto, a drug and agricultural biotechnology company. While the Cyclical/Transportation Spider includes appliances, railroads, cars and airlines, its number one holding is Wal-Mart, at 22%. Where would you put General Electric, which derives 40% of its earnings from financial services? It makes up 24% of the Industrial Spider, lumped in with the likes of AlliedSignal, which is largely an aerospace/automotive play. Hmm.

The nine sector Spiders, launched in December by State Street Global Advisors with help from Merrill Lynch, are aimed at investors with a penchant for index investing who want concentrated exposure to a particular part of the economy, such as energy, technology or utilities. Compared with sector mutual funds, sector Spiders seem to have a lot going for them. Cost of ownership is tolerable at an annual 0.65% of assets annually. Contrast the sector funds sold by Fidelity, with an average asset-weighted expense ratio of 1.2%.

You'll also pay brokerage commissions to buy or sell an Amex Spider, but it's not hard to get your commission down to a nominal sum these days. The bid-ask spread is typically less than 0.5%, and you can often avoid taking a haircut on that spread by placing a limit order smack in the middle.

Tax efficiency is high because Spiders will rarely trade their positions. In contrast, the typical sector fund trades its entire portfolio once a year on average, according to Morningstar, Inc. And unlike mutual funds, Spiders can be traded anytime during the day and sold short. They hold almost no cash, giving you undiluted exposure to the market.

Drawback: Apart from the quirkiness of the sector assignments is the problem that these funds' portfolios are very concentrated. The Technology Spider appears diversified with 82 stocks; in fact, Microsoft, Intel, Cisco, IBM, AT&T and Lucent Technologies add up to nearly half its portfolio. Exxon alone makes up 25% of the Energy Spider.

Of the nine sector Spiders, the financial, technology and energy categories are probably the best defined. Use them if you want concentrated exposure to a subset of the large companies represented in the S&P 500 index. If you prefer active management, consider the following mutual funds, highly rated by FORBES: Century Shares Trust (financial), Fidelity Utilities, Invesco Strategic-Technology and T. Rowe Price Science & Technology. ■

Top heavy

Sector SPDR /ticker Top stocks	% of portfolio
Basic Industries/XLB	
Du Pont	19%
Monsanto	9
Cyclical/Transportation/XLY	
Wal-Mart	22
Home Depot	10
Energy/XLE	
Exxon	25
Royal Dutch Petroleum	15
Industrial/XLI	
General Electric	24
Tyco International	10
Technology/XLK	
Microsoft	16
Intel	8
Utilities/XLU	
SBC Communications	15
Bell Atlantic	13

Source: American Stock Exchange.

up market decline Fidelity Growth Income lost 18%; T. Rowe Price pital Appreciation lost just 7%.

In 1959, when economist Harry arkowitz was creating what came to known as modern portfolio theory, studied several ways to quantify vestment risk, including both variance d semivariance. Variance won out cause it is mathematically more ele- nt and, on those creaky computers of e era, was easier to calculate. The bate about whether he made the ht choice has never gone away.

But some fund companies are rting to pay attention to what's ten called "downside risk" (as if ere were such a thing as upside k). Scudder Kemper Investments' AARP funds, for instance, use semi- riance to calculate risk-adjusted turns. They also include a relative easure of each fund's semivariance annual and semiannual reports.

More fund companies should do the me. But for now, it is difficult for dividuals to factor semivariance into nd selection. Retail fund-raters don't ake the numbers readily available. lorningstar, Inc., for example, uses mivariance to calculate its risk ratings nd influential star ratings, but doesn't veal funds' semivariances separately.

Now's a good time to reconsider e meaning of risk. "The usefulness f standard deviation has been obso- ted by the roaring bull market of e last 17 years," says William ougherty, president of Kanon Bloch arré, an investment adviser and und-analysis firm in Boston. (Semi- ariance, as well, can be skewed by a ng bull market, though perhaps less o. No performance measure that oks at the past decade is going to ive a really good idea of what would appen in a serious correction.)

In the table we show three diversi- ied domestic equity funds with high elative Sharpe ratios and three with igh relative Sortino ratios, based on he past decade. All have been good erformers, but the last three were nore efficient on a risk-adjusted asis—that is, they gained more per nit of downside volatility. They are worth considering if you think the market will decline. But if you're a die- ard bull, and you are right, the first hree will probably earn you more. ■

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(At Shirley's request.)

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(After Frank got lost.)

Get them tickets to a baseball game.

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(And help the police track it.)

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Unlock their car doors by remote.
(Frank locked the keys in the car.)

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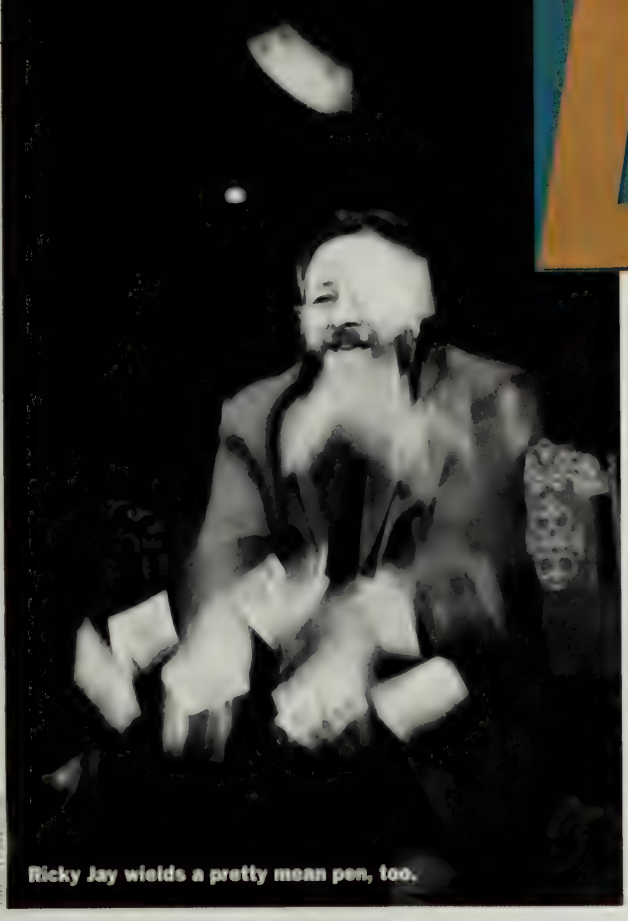

Ricky Jay wields a pretty mean pen, too.

Ricky Jay can flip a playing card into a watermelon. But his best tricks are all played with the written word.

Magical writing

By Adam Bresnick

SPLIT WATERMELON sits a table in a Victorian rary. Across the room lebonair fellow holds a ck of cards. With a k of his wrist he sends card whizzing across e room—a distance of feet. The crowd gasps it slices deep into the lon's red pulp.

That's just the warm-. He next rotates the lon so that he faces its ick green rind. Once ain cards whir across e room in a blur. Still, e first five or so rico-et off harmlessly. The dience groans in sym-thy. Then damned if e jack of clubs doesn't eave that melon up to e knave's head—neat as carving knife. The audi-ce goes nuts!

This is the grand imax of Ricky Jay and is 52 Assistants, a per-rmance in which Ricky y proves that he can be s thrilling with a deck of ards as Michael Jordan as with a basketball. Jay s scheduled to revive the how in March in St. Louis, and in Charleston, .C. in May.

If you haven't heard of Ricky Jay, you should. He is one of the more ngaging figures in American entertainment—a cunning vaudevillian, a esourceful actor and a delightful writer.

You may have caught Jay in his other incarnation as an ctor, in a gruffly charismatic turn as a porno cameraman n the hit film *Boogie Nights*. His next role is in the film *Magnolia*, due out later this year.

But it's Jay's prose that may prove his most delightful contribution to civilization. Farrar, Straus & Giroux has just reissued Jay's *Learned Pigs & Fireproof Women*, a beautifully crafted homage to some of the most pointlessly gifted individuals the stage has ever seen. These were the performers who made audiences around them gasp before Hollywood invented special-effects illusion, and Ricky Jay clearly loves them with his whole vaudevillian soul.

Clarence Willard, "The Man Who Grows," was able to stretch his body from 5 feet, 10 inches to 6-foot-4 in front of astonished audiences. The 18th-century German Matthew Buchinger played half a dozen musical instruments, conjured magic tricks on stage and was a superb draughtsman—even though he lacked legs and arms. Blind Tom, an African-American idiot savant of the 19th century, had no formal musical education, yet upon hearing a song, he could immediately duplicate it on the piano. He was also able to reproduce the sounds of Latin, Greek and French with astonishing accuracy, even though he had no clue as to what he was saying.

Jay spends the good part of a chapter telling of Max Malini, a magician who astonished potentates and heads of state from Warren G. Harding to Edward VII. Malini could borrow a $10 bill and immediately make it appear inside a lemon. He could hypnotize a plucked chicken to sleep before a dinner party. The chicken was then served slathered in sauce to the gathering, only to awaken at Malini's command and flutter squawking off the platter. Now *that's* a trick.

For Jay, this work was a labor of pure love. Born in Brooklyn on an unspecified date, probably in the late 1940s, and raised near the petroleum refineries of Elizabeth, N.J., Jay entered show business at the tender age of 7. He got second billing on a television variety show. The headliner was a Saint Bernard.

Jay's grandfather Max Katz was an obscure magician who introduced the boy to some of the great jugglers, ventriloquists and sideshow artists in the world. For years Jay worked nights as a magician on stages in the U.S. and abroad. During the day he combed through library collections to assemble *Learned Pigs & Fireproof Women*. It's a masterful performance itself and is sure to beguile even the most skeptical reader with its unremitting weirdness. ■

AUCTIONS

As the Internet changes the tradition-bound art and auction business, collectors can expect more choices and lower fees.

Independence day

By Robert Goff

JAN. 19, 1999 may one day be remembered as the day the art world up and went democratic—the aesthetic equivalent of July 4. It was the day Sotheby's announced it will launch an on-line auction site, sothebys.com, sometime this summer.

Soon anyone with a computer and a modem will be able to shop like a Greek shipping tycoon—bidding on baubles like vintage Cartier earrings and Picasso drawings—without leaving Steubenville, Ohio. No longer will you have to put up with the icy glare of that snooty intern in the old masters department as he corrects your pronunciation of Titian (it's *Tishin*).

Sotheby's announcement is just the most dramatic manifestation, although not the most interesting, as it turns out. In mid-February Yahoo Auctions and the venerable San Francisco auction house of Butterfield & Butterfield will mark their collaboration with an on-line auction, which includes O.J. Simpson memorabilia *(see box, opposite)*. Nothing like this has been done before. Within a year auctions on-line will no longer be just a flea market of Beanie Babies and fake Civil War swords, but a place where you might find a Picasso lithograph or Lalique vase.

For anyone watching the auction scene closely, this seemed inevitable. Users of auction sites like eBay and Yahoo Auctions had been posting items with bigger price tags and fancier descriptions, like an Empire sofa with scroll-shaped arms and an opening price of $2,500. On-line buyers, in turn, have been demanding more accountability and guarantees of authenticity—precisely the strengths of traditional auction houses like Sotheby's and Christie's, which pride themselves on centuries-old reputations and legions of specialists to weed out fakes.

"I don't think this is a choice," concedes Dede Brooks, Sotheby's chief executive, of her decision to sink $25 million into sothebys.com in its first year. "We can't afford not to be on-line."

One thing is certain—the turmoil in the auction world is terrific news for collectors in all strata of the market. Already the Web has given collectors access to some of the world's choicest and least-know venues, like the nearly 300-year-o Dorotheum, Austria's premier au tion house. At Interactive Collect (icollector.com) you can view its ca alogs and place bids on auctions such rarities as a Biedermeier go bracelet and an 1,800-year-old Celt coin. The Web will serve as a clea inghouse for auction catalogs, cor plete with images. To keep curre with auction catalogs in print can co hundreds of dollars a year.

Another early benefit to collecto will be a gradual reduction in fees, c both the buying and selling side Today sellers at auction pay up t a 20% seller's fee and buyers pay 15% "buyer's premium" for goo under $50,000, and 10% on anythin above. In its on-line operatio Sotheby's will retain its full seller fee, but the buyer's premium will b a flat 10%.

That's nice right there, but there an even more interesting loopho for collectors who are selling throug sothebys.com: Sotheby's is trying t enlist top-shelf art dealers and ga leries as its partners on the Web. I exchange for signing a two- or three year exclusive partnership with sothe bys.com, Sotheby's is waiving th traditional seller's fee for any art works the partner galleries offer o Sotheby's site. A savvy collector wh normally pays a 15% fee to se through Sothe-by's can save that fee by selling

Sold! To the Internet!

ON-LINE INVESTORS are known for their nuttiness when they bid on shares of Internet stocks. Will that frenzy be transferred to the collectibles market? We will soon see. On Feb. 15–16 Butterfield & Butterfield will join Yahoo Auctions in staging the first simultaneous on-line and live auction. "Other people are talking about it, and we're really doing it," says George Noceti, Butterfield's senior vice president for Internet auction services. For sale: vintage film posters and a hodgepodge of entertainment memorabilia. Estimates range from $400 to $600 for a shockingly innocent poster advertising the 1976 X-rated blockbuster *Deep Throat* to $100,000 to $300,000 for O.J.'s 1968 Heisman Trophy.

Another O.J. record: the first sale at a live Net auction.

Collectors will be able to bid in person at Butterfield's Los Angeles salesroom, by telephone or, thanks to software provided by Seattle-based LiveBid.com, in real time on Yahoo Auctions. On-line bidders first have to register on the Butterfield Web site (www.butterfields.com) to prove they qualify financially. –R.G.

the same work of art through one of Sotheby's partner galleries, possibly offering the gallery a 5% commission as an inducement.

"Fees are going to drop like a cannonball," says Pierre Sernet. In 1988 Sernet founded ArtNet (www.artnet.com), the first on-line site geared toward fine-art buyers, sellers and dealers. In March Artnet.com plans to launch on-line auctions with no seller's commission and a buyer's fee rumored to be only 6%.

The larger auction houses, which have high overhead and relatively low net profit margins (at Sotheby's, 12.5% of revenues and a mere 2.6% of auction volume), will do what they can to keep fees from falling too low. One of the reasons Sotheby's wanted dealers and galleries to sign exclusive agreements is to prevent a multitude of reputable art and collectible auction sites from cropping up. If a dealer could pit five different sites against each other on commissions, the pricing would go to hell. Says Brooks: "We would have invested millions of dollars and have nothing."

Can she stop the tide? The world has an estimated 200 higher-end auction houses and some 7,500 high-end dealers in art, antiques and collectibles, and not even Sotheby's can lock them all up. So, will the techies at eBay eventually compete with Sotheby's blue bloods? "Yes, at some level they will," says Rakesh Sood, who follows eBay for Goldman, Sachs.

But it's probably too soon to write Sotheby's epitaph. Compare: The deregulation of stock commissions 24 years ago made Charles Schwab & Co. possible, but it did not kill Merrill Lynch. Trading volume and a bull market saved the day.

Dede Brooks looks on the bright side: Prices for collectibles in the under-$10,000 range could rise as much as 20% in the next few years as people compete on-line for purchases that they wouldn't have gone to a real auction for. If she's right, both her employer and her customers will benefit.

COLLECTING

Once inexpensive love tokens for the bourgeoisie, English enamel boxes are now fought over by collectors.

Enamored by enamels

How to say "I love you" f... $21,00...

SOTHEBY'S

By Ashlea Ebeling

In 1975, when he was a budding movie director, John Landis found the perfect Valentine's Day gift for his girlfriend: a petite, round, yellow-and-white enamel box—an 18th-century English love token—in a London antique shop. Inscribed on the lid in black script was the motto "You are witty and pretty." He paid around $100.

It worked like—well, a charm. John Landis married Deborah Nadoolman. "If a man gives that to a woman, it's pretty much a done deal," she says. "Being complimented on your beauty and your intelligence—that's an unbeatable combination."

MORGAN B. AZIMI

The love charms that wooed and won Deborah Nadoolman.

During 23 years of marriage he directed movies like *Animal House* and *Trading Places* while she established a career as a costume designer. Landis' original Valentine's Day gift now anchors a collection of more than 100 boxes, arranged by color in locked glass shelving in their bedroom.

English enamel boxes were made from 1753 to 1840. Their form and decoration varied widely, from rectangular boxes depicting pastoral landscapes to figural boxes of, say, fruits or animals. They were made of thin copper pieces, hinged together with hammered copper rims and decorated with enamel and paint. Arsenic and lead, ingredients frowned upon today, produced vibrant colors.

The bourgeoisie originally used the fragile boxes to hold snuff, fake beauty marks and hard candies. Men often gave the boxes to women as love tokens, but in time they became common souvenirs. By the middle of the 19th century they had fallen out of fashion.

They are back in fashion, in a big way. Boxes with rare shapes and elaborate painting cost the most. A figural box in the form of a parrot atop a blue-and-white bowl of fruit, made in Birmingham circa 1765, sold for $21,000 last June at Sotheby's in London. The seller had bought it from the Chicago-based dealer Taylor B. Williams Antiques f... $16,000 in 1997. Nadoolman has one like it.

At the same sale a box depicting a tabby kitten curled c... a pale blue cushion sold for $9,600, double its high est... mate. Generally, figural boxes, which are the hardest to fin... go for $2,000 or more.

There are also egg-shaped boxes that conceal nutme... graters (women used the nutmeg to di... guise bad meat at wayside inns), an... boxes made to look like pocket watch... (Welsh miners flashed them after churc... to imitate the real thing).

A simple antique English enam... box—commonly called a Battersea bo... from the London neighborhood that housed the fir... factory that made them—starts at around $500. Roman... tic mottoes, such as "If you love me, don't deceive me... are the most popular. Patriots can find rare specimen... made for the American market with sayings like "M... country is dear, but liberty is dearer."

The Battersea revival got under way in 1970 when... London antiques dealer, Susan Benjamin, commissione... reproductions to sell in her shop, Halcyon Days. A... modern imitations filled mail-order catalogs and gi... stores, the antique pieces became more desirable.

One of Nadoolman's favorite boxes shows a brow... cow licking her udder, with a painting of the same co... grazing in a pasture on its reverse side. But she sti... prizes, above all, the box her husband gave her on the... first anniversary. It depicts a country vicar marrying... young couple. Inside, Landis tucked an emerald. Mo... romantic than snuff.

Where to find English enamels

Taylor B. Williams Antiques has an excellent Web site (www.enamels.com) that showcases items for sale and lists antique fairs where the firm exhibits. Upcoming: the Winnetka Antiques Show in Winnetka, Ill. (Mar. 5–7) and the 23rd Street Armory Antiques Show in Philadelphia (Apr. 9–11).

Susan Benjamin's shop, Halcyon Days, sells modern and antique English enamels at 14 Brook St. in London. A mail-order catalog is available (1-800-445-8058 in the U.S. or 44-171-629-8811).

On view at the Victoria & Albert Museum in London is an outstanding collection of enamels bequeathed by Lady Charlotte Schreiber in 1884. Or pick up Benjamin's *English Enamel Boxes* (Orbis, London, 1978, reprinted by Little, Brown & Co., U.K., 1993). –A.E.

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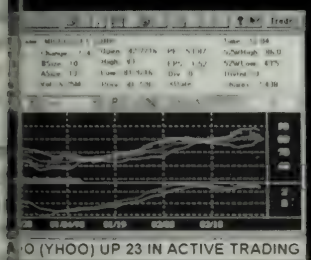

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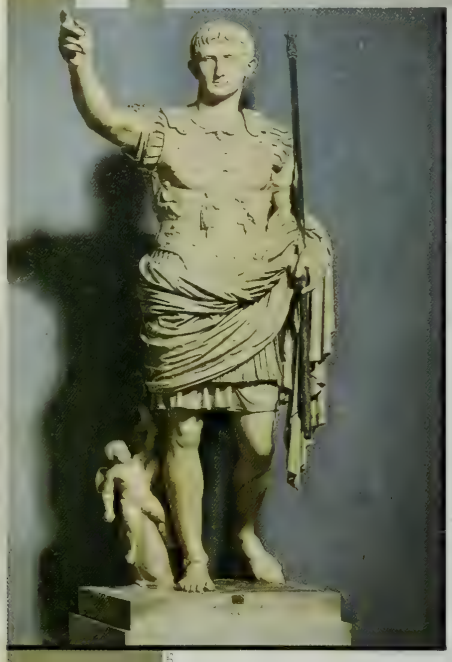
Thoughts on the business of life

For an eye-opening eyeful, every CEO should earmark one day—just once—to be spent personally signing every check over $1,000 that his company will be sending out. Just the headquarters' checks, not salary checks. What a myriad of questions you'll have; how much you'll learn that you never knew. At Forbes a few years ago I did a day's check-signing, but discovered that most of the things I questioned turned out to be for things I'd requested. Needless to say, I haven't repeated. –Malcolm Forbes (1981)



To be able to endure odium is the first art to be learned by those who aspire to power.
Seneca

When a man takes the road to destruction, the gods help him along.
Aeschylus

We often give our enemies the means for our own destruction.
Aesop

The relationship of morality and power is a very subtle one. Because ultimately power without morality is no longer power.
James Baldwin

The highest proof of virtue is to possess boundless power without abusing it.
T.B. Macaulay

A man's worst enemy can't wish him what he thinks up for himself.
Yiddish proverb

Power is something of which I am convinced there is no innocence this side of the womb.
Nadine Gordimer

I have always felt that a politician is to be judged by the animosities he excites among his opponents.
Winston Churchill

The first principle of a civilized state is that power is legitimate only when it is under contract.
Walter Lippmann

We demand of our political life greater certainty and greater perfection than we demand of our personal life.
Max Lerner

Experience suggests that the first rule of politics is never to say never. The ingenious human capacity for maneuver and compromise may make acceptable tomorrow what seems outrageous or impossible today.
William Shannon

When the President does it, that means it is not illegal.
Richard Nixon

Experience has already shown that the impeachment the Constitution has provided is not even a scarecrow.
Thomas Jefferson

Whether ours shall continue to be a government of laws and not of men is now for Congress and ultimately the American people to decide.
Archibald Cox

No man will ever bring out of the Presidency the reputation which carries him into it.
Thomas Jefferson

In America any boy may become President and I suppose it's just one of the risks he takes.
Adlai Stevenson

A Text . . .

Be strong and of a good courage, fear not, nor be afraid of them: for the Lord thy God, he it is that doth go with thee; he will not fail thee, nor forsake thee.
–Deuteronomy 31:6

Sent in by Val Whitaker, Clinton, Mo. What's your favorite text? *Forbes Book of Quotations: Thoughts on the Business of Life* is given to senders of Bible texts used.

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FEBRUARY 22

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Big Iron

Supercomputers are back and changing business, science, and soon even you.

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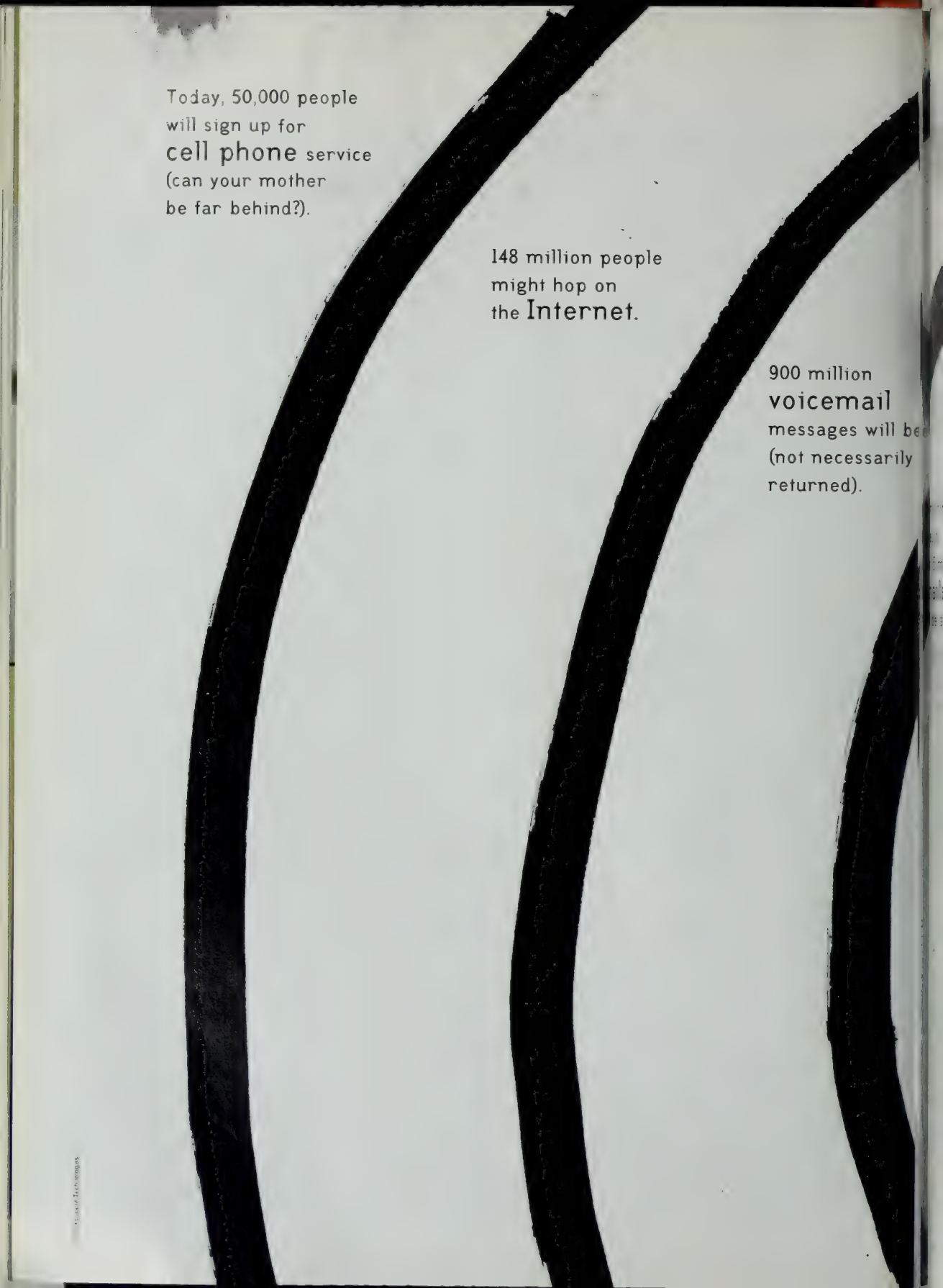
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AND SO MUCH HARDER WHEN YOU DON'T.

February 22, 1999

Forbes ASAP

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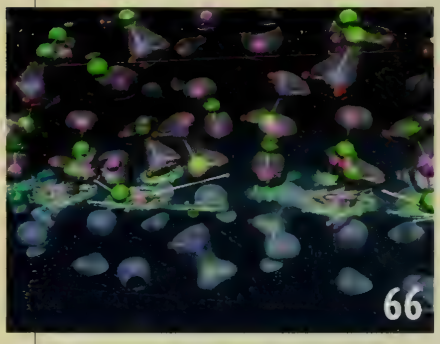

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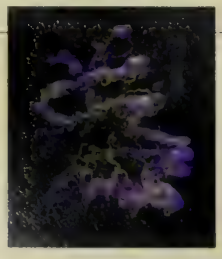

COVER

A supercomputer model of the actin molecule, a major protein component of muscle tissue. The strands of molecular bonds (in yellow) are shown amid dense clusters of electrons (in blue). Photo courtesy of Wes Bethel, of the Visualization Group at the National Energy Research Supercomputer Center, and Ken Downing, Lawrence Berkeley National Laboratory.

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Bigger is Better

Two ASAP reporters give the inside on their featu stories in this iss

REPORTERS' NOTEBOOK

Supercomputing is *it*...for now.

SUPERCOMPUTING '98, the industry's annual show held late last year, was a journalist's dream. Unlike at any conference I've ever attended, I was able to land numerous casual interviews with National Science Foundation officials and directors of multi-million-dollar supercomputing centers. Why? Because supercomputing has become a publicity-starved industry. Academics and vendors are anxious to gush over their latest projects and show off their newest, biggest boxes.

Then, unexpectedly, the going got rough when I returned to the Bay Area and tried to interview supercomputer users. Corporations didn't want to talk about their forays into supercomputing. A former executive from Cray, that industry stalwart now owned by Silicon Graphics, told me: "Companies share just enough to get a reputation, but not enough to give away any competitive advantage."

It's understandable. If you develop a way to make or sell your product significantly cheaper, why blab about it for your competition to hear? Procter & Gamble refused to talk to me through official channels.

This tight-lipped behavior is ultimately self-defeating. The supercomputer industry must tell its success stories and explain the real-world practicality of its machines if it is to regain its lost glory. Publicity will propel government research funding, increase software applications, and attract the talented programmers and engineers currently in limited supply.

In short, the industry needs a few good evangelists. The question is, who will rise to this challenge? —*Scott Lajoie*

THE BOMB kept me awake at ni with fear when I was a child.

My attitude changed somew when I visited Los Alamos Natio Laboratory last October. I felt odd respect. Why? Because I Alamos may be the most significant 20 century site. I spoke with brilliant scienti and had a rare glimpse of the superco puter, Blue Mountain, being used to sim late nuclear testi

The visit dispel my naive notion t nuclear weapons relics of the Cold W era. They remain c nation's first line of national defense. Althou the United States has ceased to produ them, other nations, such as India and Pa istan, have not. These nuclear powers al ignore the world's pleas to ban "live" testi

The scientists at Los Alamos are co fronted with the daunting challenge of kee ing our existing weapons functional. Th must sustain the life of something design to extinguish all life. Blue Mountain is pa of that life-support system. For the first ti in history we are relying completely on computer to simulate a nuclear explosio

Machines crash, lie, and cheat. But cannot survive without them. Daily we su render more and more responsibility powerful computers, including such cri cal ones as Blue Mountain.

One can only wonder: What would Robert Oppenheimer, the father of the atom bomb, have thought of today's virtual weapo testing? "Hubris," says a weapons design at the lab. "But with the technology availab today and 50 years of test history, it is n as great an act of hubris as it would ha been in 1945." —*Carol Pickeri*

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READERS RESPOND

re pleased to report that the response to our Issue III" was one of the largest in Forbes *P's history. Unfortunately, because of space traints, we cannot run all of the comments. nks for reading, and writing. — The eds.*

nd the November 30 *ASAP* ["Big Issue Fifty-Seven Minds on Time"] to be a t provocative journalistic endeavor. The iors, in profound and insightful ways, ressed a stimulating topic. The artwork illustrations are superb. I particularly oyed Peggy Noonan's article ["There Is Time, There Will Be Time"]. In fact, I d one section as a component of my non last week. For me, as a Sabbatarian, e holds special significance. Thank you bringing together a group of gifted ple to share their ideas on the one and y aspect of life we share equally: time.
NRENCE G. DOWNING
owning@aol.com

bes ASAP may have achieved a benchrk of millennial dimensions in its "Big ue." While perhaps not approaching the calyptic visions of Saint John the Divine, re is at least something revelatory in each servation. My favorite political speechiter, Peggy Noonan, strikes the most ing and potentially most helpful chord th her concern for our present euphoria d the prospect of an eventual letdown. As e says, "History has handed us one of the siest rides in all the story of man." Like r, I too am now "uneasy." Whereas early scoveries were easily understood by most eryone, recent advances in computer and ological science are less well understood by l save those few favored with insights into ese exotica. For example, even as we ceive news of impending good fortune in atters of genetic engineering, why are we reluctant to acknowledge the presence of ny external influence in our affairs? Are we at arrogant? I suggest that we are both rrogant and ignorant and, as some have emarked, where there is both ignorance and arrogance there is hopelessness. Let us not be hopeless. As we receive this new technological bounty, let us not lose our humanity. It may be that, in becoming more human, therein lies our ultimate release from these things that would otherwise enslave us.
JAMES E. VAUGHN
jev@bscn.com

As a longtime subscriber, I found this issue fascinating, interesting, and thought-provoking — and this from someone who never writes letters to the editor. Good work!
DAVID WALSH
davidwalsh@aol.com

I was fascinated by all the essays on the changing perceptions and uses of time in your "Big Issue III." I have one comment about Ralph Nader's ["Supersonic Brain Shredder"] idea on the "blitz" of time. He noted that when busy Americans are asked whether they comparison shop or write formal complaints to companies, the standard response was, "I just don't have the time." Actually, they all have the same amount of time — 24 hours a day. Instead of saying, "I just don't have the time," say, "That isn't the way I choose to spend my time."
POLLY PITKIN RYAN
Berkeley, California

am impressed that a business agazine can devote so much pace and energy to the coverage f such an ethereal topic."

Your "Big Issue III" is an exceptional piece of work. I got my hands on a copy a few days ago and won't let go. Fascinating reading, and most impressive was the use of fine art — contemporary at that — throughout. You guys are real adventurers. Hats off to [Art Director] Tony Lane for an extraordinary accomplishment, and again my sincere congratulations on this singular achievement. I was so impressed with the entire issue I would like to request permission to use it as the framework for my course on contemporary art next semester.
KIM CHALMERS
kchalmers@pascal.coker.edu

Kudos on your "Big Issue III." You have done an excellent job packaging an impressive collection of writers with inspired artwork and graphics to create a powerful overall impact. I am impressed that my favorite business magazine can devote so much space and energy to the coverage of such an ethereal topic. We businesspeople need to have our brains tweaked more often on subjects other than the standard fare of mergers, management, finance, etc. Thank you for giving us such a plentiful feast of food for thought.
CHRIS KATTERJOHN
ckatterjohn@ibj.com

I have never been so impressed with a collection of stories. I started reading and tried to begin by marking the "good" stories that I wanted to share with loved ones. Story after story got the mark. The variety of authors, opinions, and perspectives was fabulous. I found myself unable to set it down; my emotions swelled as I read about the religious and moral implications that were so eloquently articulated. Absolutely a "great" work.
LEGRANDE BLOUNT
lblount@flash.net

What a wonderful issue! I read it cover to cover, twice. I read excerpts to my family, and I've just spent an hour or so on Amazon.com looking up all the authors and the books they have written to see what I wanted to buy for Christmas. Thank you so much for your efforts to gather such a diverse group of authors, some of whom I knew and had read, and others who were new to me. A terrific job! I'm going to save the issue for a long, long time.
GALA MOWAT
gala@mowat.com

Congratulations to all involved with putting together a great issue. Peggy Noonan's essay was especially well done and thought-provoking.
VICTOR MICHNOWICZ
victorm@asirsd.navy.mil

Rather enjoyed your "Big Issue III" on time. It was a grand remake of the old joke about the blind men describing the elephant.
JIM O'NEIL
joneil@ptialaska.net

Apparently your minds were not "on time" when you laid out the most recent issue of *ASAP*. I wish I could have back the time I wasted flipping through the magazine

over and over just to read the articles. Not only is your practice of noncontiguous articles an insult to your readers, it is inexcusable. If your articles are good, and they are, readers will see every page (and all the ads) without such out-of-date, page-flipping nonsense.

You often talk about customer-driven businesses—do you have one reader who prefers to maddeningly thumb through each issue repeatedly just to read the articles?
JERRY DAWSON
jerdawson@worldnet.att.net

I found myself fascinated by the "Big Issue III." Not because of the articles (which are interesting) but because of the art used as illustration. A fantastic job.
CHARLES IRSCH
crpirschc@aol.com

Owen Edwards' "Running Out" is probably the very best essay—on any subject—I've ever read.

An intellectual I ain't. I'm no academician, nor am I any kind of deep thinker. But I am reasonably bright and was taken by Edwards' uncanny ability to interpret time so exactly.
GEORGE SCHMITZ
Lake Arrowhead, California

What a marvelous issue! It should be a philosopher's textbook. It is thought-provoking and practical. Is it possible to buy extra copies and, if so, at what price?
ELIZABETH LANGHORNE
jlll40@cfw.com

You can buy extra copies of Forbes ASAP *by calling 800-888-9896. —The eds.*

The issue on time was superb. I opened the magazine toward bedtime thinking it would help me fall asleep. All it did was wake me up because I enjoyed reading the wonderful articles by the fantastic authors, some of whom I have met in my studies.

I am a biologist much interested in clocks. I have 10 that I wind each day, more or less, but I am also a teacher and author, so you can understand my appreciation of your magazine. I will look forward to more reading that keeps me awake!

Thanks.
MARGERY MILNE
mmilne@alberti.unh.edu

I have just finished perusing this issue, probably your best ever! However, I believe I discovered a discrepancy in "The Universal Moment." First it states in line three: "4.6 billion years: Sun has provided light to planets." I presume from this that the st is at least 4.6 billion years old; I am also reasonably sure that the sun is a star.

Then, as we arrive at line 13 we read "10 million years: Lifetime of a star before it explodes into a supernova." ... Please, explain.
GABOR KOVES
gaborkoves@aol.com

Our resident astronomer says that not all stars are the same. Our sun has a much longer life span because of its smaller size. —The eds.

Since receiving my first issue of *ASAP*, tir has changed for me. Seasons are gone. Tl year is now divided by the time between your issues. Now all I need is the time to read them and *Forbes*, too.
JAY SALWEN
jsalwen1@nycap.rr.com

It is just now 70 years since I graduated from the U.S. Navy flight school at Pensacola—and 45 years since I retired from Marine Corps aviation ranks. Seems like last week! However, with the sun at my back, I note that my shadow, which has

Black tie is optional but a 300-horsepower V-8 is standard in the world's most powerful luxury SUV.* There's room for seven in three rows of leather-trir

bows and shuffles forward slowly. recent issue on time is tremendous, great kudos to Kurt Vonnegut, Stephen nbrose, William F. Buckley Jr., Chuck er, and others who made this issue ortal. I shall preserve it until I can no er read.
LACE S. MAZET
terey, California

P THE PAPER CLIP

t column ["Feature Creature," October Microsoft Word is driving me crazy, too, ou left out the most helpful bit of all. do I turn off that stupid dancing r clip?
HAMANN
@spectrumfinservices.com

uggest the following site for help: v.zdnet.com/zdhelp/howto_help/ lippy/clippy_1.html. —The eds.

MONKEY TALE

yed the story on the birth of the gn for email ["Legends—Ray Tomlin-," October 5]. Of course, to someone is not familiar with English, the @ isn't easily understood as meaning Once I asked a Swiss friend for his email address and was momentarily puzzled when he referred to "monkey tail" as in name "monkey tail" isp.com.
STEW WALTON
stewwalton@aol.com

ERRATA

In our October 5, 1998, issue we incorrectly stated that EMC's Richard and Maureen Egan hold 14% of outstanding EMC shares. The correct figure is 1.4%.

In our November 30, 1998, issue we neglected to give credit to the following books, publications, and organizations for the timescape sections. Also, we thank the faculties of Cornell University, Stanford University, and the University of California, Berkeley.

Gale Book of Averages
edited by Kathleen Droste and Jennifer Dye

Electronics Engineers' Handbook
by Donald Christiansen

Computing in Science & Engineering magazine

Newton's Telecom Dictionary
by Harry Newton

The Timetables of Technology: A Chronology of the Most Important People and Events in the History of Technology
by Bryan H. Bunch and Alexander Hellemans

The World Almanac and Book of Facts 1998
edited by Robert Famighetti

Computer Industry Almanac, eighth edition

Oxford Illustrated Encyclopedia, volume eight

World Book Encyclopedia

Durations: The Encyclopedia of How Long Things Take
by Stuart A. Sandow

A Short History of Planet Earth: Mountains, Mammals, Fire and Ice
by J. D. MacDougall

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ll the staid, insular world of used and
e books ever be the same again?

N THE MIDST OF the furious battle between Amazon.com and Barnes &Noble for hegemony in Web-based book superselling, another, tiny revolution is taking place. It is being led by the most unlikely people: softoken, often eccentric bibliophiles.

Sellers of used, rare, and out-of-print oks are cashing in on the Internet. The fference is that these baby Amazons, like their giant counterparts, are actuly turning a profit. They are doing so in market that could top a billion dollars—us proving that Metcalfe's Law (the power a network grows exponentially every me the size of the network doubles) apies to e-commerce on all levels and scales.

Take Karen Weyant. She ran Scribe's Perch, a bookstore selling used and out-of-print titles in Newport, Rhode Island, for 12 years. In November 1996 Weyant permanently shut the shop's doors and turned Scribe's Perch (scribesperch.com) into a Web-only vendor. Since then, business has never been better. "A couple of weeks ago, I had a real banner day. I went to bed, and when I got up in the morning, I had $1,000 in sales," says Weyant.

A quiet revolution is taking place, and it's being led by the most unlikely people.

By moving the bookstore online, Weyant is now able to sell books she couldn't give away before. "Usually the books are mundane, but someone's dying to have them," says Weyant. The cyberstore generates twice as much revenue online as it ever did through its storefront.

Scribe's Perch is only one of the 6,500 sellers of used, rare, and out-of-print books in North America. According to industry tracker Susan Siegel, about half of these stores are now selling online—moving an estimated 12 million of the 90 million out-of-print books worldwide.

Y2K HITS: LIGHTS GO OUT!

Brokers' Blackout Late last year, San Francisco suffered a massive power failure. For about five hours, much of the city was without lights, including the Pacific Stock Exchange (left). Human error was the cause of the blackout. But Y2K experts like Edward Yardeni believe this might be a prelude. Y2K could knock out our electricity grid: "This is my main concern," he says. "Without the juice we won't be able to fix all the other systems."

BABY AMAZON

(compare that to Amazon's inventory of just 3 million new books). For these stores, the Internet can account for 40% to 75% of sales—even though typically only 10% to 20% of the stores' inventory is online.

Five years ago, many of these baby Amazons set up their own Web sites and patiently waited for customers. Not much happened. The booksellers quickly learned their lesson and began to team up with specialized Web search engines that act as online clearinghouses. For a nominal monthly fee, $20 to $40, bookstores can list their inventory and draw more traffic.

One such site is Advanced Book Exchange (abebooks.com). When Keith Waters and Rick Pura started ABE three years ago, they recruited five booksellers from Victoria, British Columbia, and posted an initial inventory of 5,000 books. Today the company employs a staff of 35, and its book inventory, which comes from 4,500 sellers, includes 12 million titles.

It's not just avid readers perusing these virtual clearinghouses. Because Amazon.com and Barnes & Noble offer used-book searches on their Web sites, they also submit their customers' requests to clearinghouses such as ABE. If a match is found, the individual store sends the book to Amazon.com or Barnes & Noble, where it is repackaged and mailed out to the customer, often at a 50% to 100% markup, plus shipping costs.

Karen Weyant

"I went to bed, and when I got up in the morning, I had $1,000 in sales."

For this service, the clearinghouses earn brand credibility, broader exposure, and the books sell faster. This adds up quickly. ABE has sold as much as $11,000 worth of merchandise through the Barnes & Noble Web site in a single 24-hour period. Revenues in 1999 could top $2 million.

With that kind of money at stake, it's not surprising that the genteel world of used-book stores has heated up. Three years ago Jay Miller of Berkeley Book Company (berkeleybooks.com) was operating a rare-book search service for select patrons. Now he buys large volumes of books directly from individuals and booksellers around the country. He then stores them for resale. Miller's Berkeley Book is one of the largest Web-only sellers of used and rare books in the country. With more than 100,000 books already cataloged on his site, and 300,000 waiting to be listed, Miller ambitiously hopes to get a million titles indexed on his Web outlet by the year 2000. Even if he doesn't reach his goal, Miller's business plan shows what the future may ➤

RANDO ACCES

Dell's Sell The bus press can't seem to j the statistic fast eno Dell Computer is se $10 million worth c computers through Web site every day. the stat is as mislea as the Beardstown Ladies' stock profits figure includes trans tions in which custo have simply browse

Dell's Web site to fin what they wanted be calling the company 800 number. In fact, more than two-third of Dell's Web sales involve human sales representatives. So much for the accura of the financial press

A New Way to Sho Last December, an anonymous New Yor fund manager, using alias "Auric Goldfing posted an online con in the newsgroup Sili Investor. He offered $5,000 reward to any who predicts when a why the Internet sup stars, such as Yahoo, fall. No doubt, short ers everywhere were at their keyboards.

Mail-less Even if br kers at Morgan Stanl Dean Witter wanted t participate in the con (above), they couldn' Per company policy, brokers don't have e accounts. That could change this year. Let's hope so.

—Rodes Fishb

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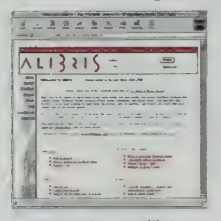
BABY AMAZON

hold for sellers of used books—volume. Gone is the quaint shop on Main Street. Miller's operation is a 19,000-square-foot warehouse next to the freeway. Gone are the attentive booksellers waiting behind the walnut-paneled counter—Miller's staff deals only with Web customers and the occasional phone order. Yet the beauty of volume is, well, volume. Berkeley Book, in all of its stripped-down glory, is among the most productive online sellers of rare and out-of-print books in the world—15 full-time employees scrambling to process as many as 500 orders in a single day. Gross revenues are close to $1.25 million a year.



Magnum Opus Alibris, based in Sparks, Nevada, is becoming a portal for used and rare books.

But even Miller's vision isn't grand enough for some. Alibris, an online search engine/warehouse, is building a gigantic Web book portal where patrons can search for unusual or out-of-print books (alibris.com). By consolidating books from its 850 bookseller members into a large warehouse in Sparks, Nevada, Alibris is using the Amazon.com model to conquer the used, rare, and out-of-print book market. It also handles other worrisome details for bookstores, such as shipping, billing, and data entry.

Alibris' growth has been stunning. During the first six-week period after it opened in mid-November, sales grew 2,400%, from 20 books to 500 books per day. Its goal for the end of 1999 is 6,000 orders a day. That could give Alibris revenues of more than $80 million and industry leadership in the year 2000.

Similar paradigm shifts are taking place wherever search technology and connectivity join, from real estate listings to job postings to online auctions. If the Internet can transform the way that thousands of quaint little booksellers across the country do business, it can penetrate any market, at any time. As networking guru Bob Metcalfe says, the Internet, the most efficient market ever to emerge, is about to become even better.

—Rodes Fishburne

WHY MY STARTUP FAILED

MEET ED HARRIS. *He learned the hard way that 50-50 partnerships fail more often than they succeed. Here's his story in his own words:*

In November 1996, I approached an acquaintance I'd known for about six months with an idea for a startup. After several meetings and some due diligence, we agreed on a 50-50 owner relationship. We filed as a California corporation in February 1997 and started bringing in revenue. In fact, we took the company from $1,000 to about $56,000 per month in less than a year, bootstrapping it all the way. We had everything going for us.

PARTING OF WAYS Ed Harris (left), riding in the back of a limo with his ex-partner. Harris's advice before entering a 50-50 partnership: Look deep into a person's soul, and then go out and hire a good attorney.

My partner and I had built not only a company but a relationship. In all aspects of business and personal interaction, ours was a relationship built on mutual trust and understanding. (My partner was acting CEO and CFO.) But looking back now, I didn't question the financial status of the company enough. We didn't have a system of checks and balances in place.

In December 1997, we began to value the company to issue stock to our employees. My partner devised a scheme that valued his own worth at almost a 2:1 ratio to my worth. He was trying to make the 50-50 partnership a 70-30 partnership. After trying to negotiate and realizing that he would not budge from his position, I sought legal counsel. By early February 1998, I filed for dissolution of the corporation.

What's my advice if you're thinking of starting a company with a partner? As with any relationship, marriage or business, trust is everything. Look deep into a person's soul, get to know him or her well, and examine qualities you like and dislike before you enter into a long-term relationship.

Also, it never hurts to have an attorney on your side. Do it right the first time, and you won't have to do it again. *—Ed Harris is now CEO of Solid Integration in San Jose, California. If you have a startup failure story, email ericp@forbesasap.com.*

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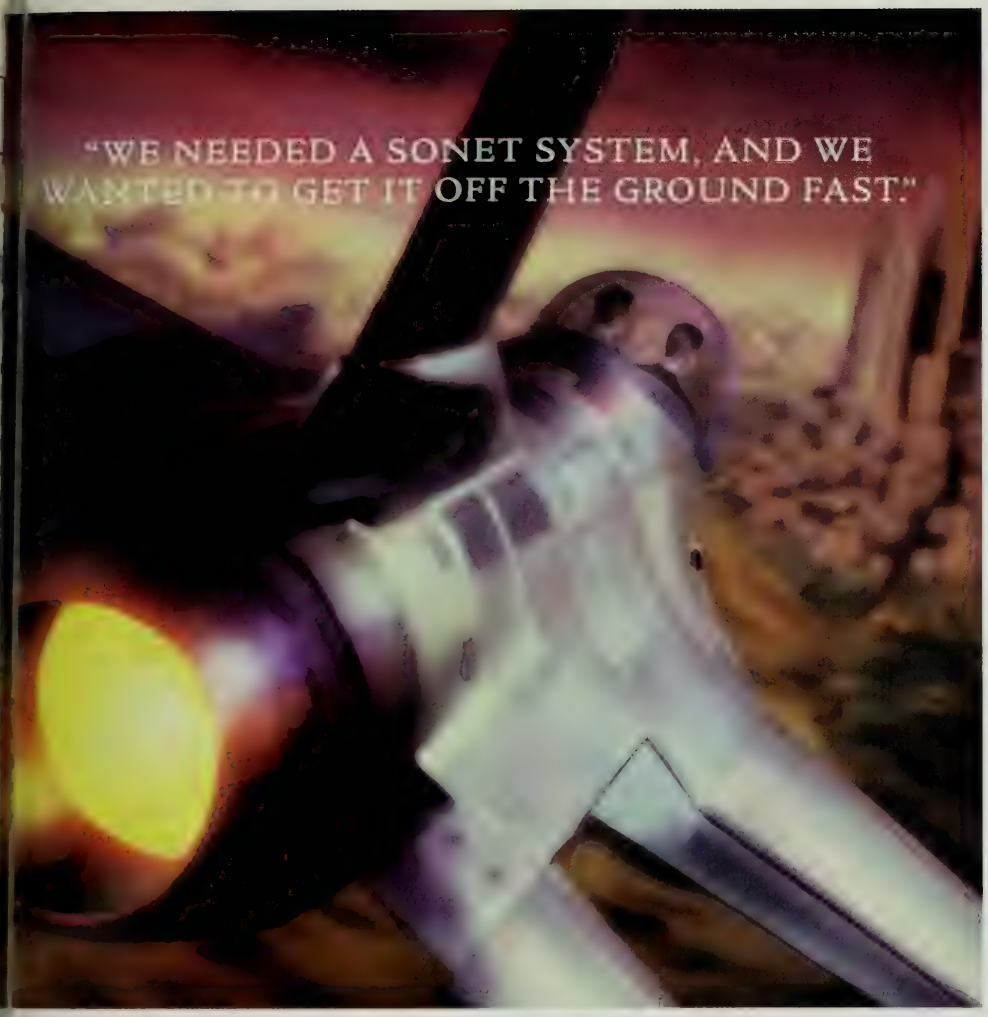

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FOR HIGH TECH RECRUITER *Patrick Sylvester, the ideal employee is as aggressive, impatient, and thick-skinned as an NFL football player. So it wasn't surprising that one of his most promising protégés, Brad Costello, signed on as a punter for the Cincinnati Bengals last season. Sylvester, 33, is a partner in Management Recruiters International of Cherry Hill, Pennsylvania, which recruits high tech personnel for Forbes 500 companies.*

"Almost all of my most successful recruiters," he says, "are firstborn children, most are athletic, and all of them overcame a significant obstacle in their past. My top earner, for example, fled the political situation in the Philippines with her family when she was 10 years old; she went on to college on scholarship.

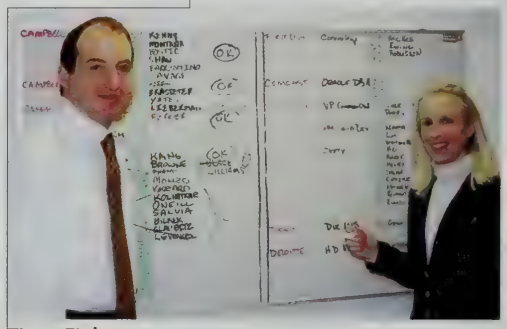
"I look for somebody who has been competitive, who has a sense of urgency. Athletes push themselves; the good ones always want to improve.

"I was attracted to Brad Costello because he overcame a college injury and became a first-team, all-American punter. Recruiting is like punting in that there's not much room for error. Plus, it's highly competitive—you have maybe two openings for punters a year. Brad was up to the challenge of recruiting because he's learned to take the heat.

"As a recruiter, you're asking someone to pack up their desk, take the plaques off the wall, walk into their boss's office, shake hands, and leave. You might ask them to do that several times during their career. They need to trust you. That's why I find that the most successful recruiters are women—they understand psychology. They innately see things in people that men don't see. They develop trust.

"In high tech these da there's a shortage of talen so candidates can write their own tickets. They might be getting 10 calls a week from recruiters. They can pick and choos In most other markets yo may have 90 days to mov talent; in high tech you've got 30. You can't drag you feet—you've got to move the candidate fast, move company fast, match the profile and the culture; y can't bog down."

—Chiori Santi



Tiger Fighter Last year, Patrick Sylvester hired the perfect person: competitive, tough, and tested under pressure. Too bad the Cincinnati Bengals were also interested. Right: Christie Hoyt, one of Sylvester's top recruiters.

IT'S NOT IQ, STUPID

Practical intelligence, not IQ, may be the real reason behind high tech success.

In the world of gigabytes and hard drives, a high IQ is coveted like a prize thoroughbred. But a new psychological study throws a wrench into the longstanding assumption that an employee's high IQ translates into company success. Psychologist Regina Colonia-Willner studied 200 high-level bank managers in São Paulo, Brazil. Her goal was to understand why some managers in their 60s and 70s are highly successful despite the cognitive losses brought on by the aging process. Colonia-Willner discovered that older managers were able to compensate for any loss of intellect by cashing in on their large reserves of practical intelligence—i.e., the ability to organize knowledge and use it to solve real-life problems. Such practical intelligence, she says, is critical in a marketplace where only the innovative and adaptive survive.

—Linda Berlin

EVERYTHING BUT THE BEE

Your wedding band may have once lived in a compute

METECH INTERNATIONAL, a subsidiary of Swedish conglomerate Trelleborg AB, perfor modern alchemy, turning cast-off computer hardware into gold. Last year, Metech rec ered 120,000 ounces of gold (worth about $35 million) from 11,000 tons of scrap metal much of it hardware it buys from computer manufacturers. Metech pours this salvag gold into 24-karat bars and sells them on the open market. The gold may then show in another circuit board (where it's used as a conductor in microprocessors) or even in your gold wedding band.

Metech also extracts other precious metals (silver, platinum, and palladium) from outdated computers and electronic components. In addition, the 30-year-old company helps nonprofit community groups refurbish, reuse, and even resell workable old computers and parts. And it recycles paper and cardboard packaging, plus plastic from compact discs.

Nothing is wasted, says national sales manager John Zekanoski, not even some programmer's tennis shoes that popped up once in the waste stream. *—John T. Maybury*

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Learning to be a high tech CEO 20,000 leagues under the sea.

AYE, AYE, CAPTAIN

DOUG LITTLEJOHNS learned everything about becoming a high tech executive while 20,000 leagues under the sea, sleeping next to a nuclear reactor. Littlejohns, who commanded diesel and nuclear subs in the British Royal Navy, is now CEO of Red Storm Entertainment, a computer games producer.

In the past two years, he has led the North Carolina startup through particularly dangerous waters. Well over half of all software gaming companies go under in their first year. The odds are only slightly better for Red Storm, lucky enough to leverage the name of one of America's best-selling authors, Tom Clancy (*The Hunt for Red October, Clear and Present Danger*), who founded the company as a vehicle to spin off software games and other merchandise from his novels.

Littlejohns, 52, is used to such pressure. He has been at war (the Falklands) and knows how to handle himself in the worst situations—say, when he's submerged and taking on water. "That happened twice in my submarine career," he says. "It tends to tighten up the muscles a bit."

In his 30 years in the navy, Littlejohns rose from cadet to commodore. He joined the submarine fleet because of its more relaxed atmosphere, and became the first officer of his rank to earn an M.B.A. while serving—a sign of "an entrepr neurial streak that was trying to get out," says his wife, Debs.

Submarine life, says Littlejohns, is nearly identical to that at Red Storm: A smart, free-spirited group works closely together to achiev a goal. The pressure can be intense, the hours long. Humor turns out to be a lifesaver. Little-johns, who is called "the Commodore" by the company's young game producers, is famous f such dry, witty sayings as: "Stop playing games and work."

After the Cold War came to an end, Little-johns left the navy in 1994. "I didn't want to try and get to the top of a greasy pole in an organi zation that was getting smaller," he says. Instead he went to work as a director of a convention center in London. Two years later Clancy tappe him to be CEO of his new company.

"Doug is a leader, not a manager. He was m only real choice," says Clancy, who had met Littlejohns 11 years earlier at a cocktail party. Clancy had just published hi submarine thriller, *The Hunt for Red October,* and since Littl johns was a submarine commander, they had plenty to talk about. "We became firm friends," says Littlejohns, who even advised Clancy on one of his novels. Over the years, they ke in touch and remained close friends.

"I never worried about commanding a submarine that's worth $550 million," says Littlejohns. "I never worried about whether a sailor could pay his mortgage if I screwed up. I knew the navy would feed and clothe him. Now I have the financial and emotional lives of 68 employees to think about. weighs more on my mind than ever before." —*Eric W. Pfeiff*

THE $184 QUESTION

The Press and the Y2K Problem

Just in case Americans suddenly suffer Year 2000 panic and dash to their bank machines, the U.S. Treasury Department is printing an extra $50 billion in cash this year. Based on current census numbers, this sum breaks down to $184 for each man, woman, and child in the United States. We asked journalists who cover Y2K, "Will you or won't you withdraw?"

John Markoff, technology writer for the *New York Times:* "I'll take the $184 ahead of time, but I'm betting that my cash machine will live through Y2K. I'm whistling past the graveyard. The thing that irritates me is that I'm going to be working at midnight [December 31, 1999]. I'm on call to see if everything works."

Walt Mossberg, technology columnist for the *Wall Street Journal:* "I'm going to follow the example of Bill Gates; if he leaves his money in, I'm going to leave my money in. $184 wouldn't be enough to buy fish and canned goods for a survival camp."

Adrian Woodridge, West Coast bureau chief for the *Economist* magazine: "I will take out a few hundred dollars in anticipation of a short-term problem. One thing that worries me, though, is that all across Asia countries have been scaling back on their preparation because of a lack of funds and because all of their resources are diverted to more immediate problems. They haven't had time to think about it."

—*Rodes Fishburne*

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ANGELS IN AMERICA

WHO'S INVESTING IN WHAT AND WI

GORDON BELL

Former vice president of research and development for Digital Equipment... known as the father of the minicomputer... for the past 15 years advised or invested in nearly 60 startups with a batting average, he says, of about .550.

WHAT: Invested $50,000 in IQ.commerce, a Saratoga, California-based maker of Internet software that helps companies target customers. Potential customers are portal sites, computer manufacturers, and online merchants.

WHY: "The reason I invest is the psychic reward in seeing a company and product category grow into existence," says Bell. "So I usually only invest if there's something unique." He sees IQ's coupon system as a possible future for digital money. "In essence, I only like hard projects that push the limit and that others would not easily fund."

KEVIN KIMBERLIN

Chairman of New York investment firm Spencer Trask & Company... founding angel behind Ciena, the largest IPO in technology history.

WHAT: Invested $2 million in Lisle, Illinois-based Mercantec, maker of an easy-to-install software that enables companies to become online retailers.

WHY: Kimberlin likes the CEO, Andy Parker, formerly of S glass, calling him a "dynamic, experienced online busin man." He also likes Mercantec's strategy, which targets on retailers and Internet service providers that host storefr

type Web sites. "This is the most inexpensive of putting anybody in online business. You ca up and running a business this afternoon," Kimberlin. "It's the ultimate American dream allows everyone to be in business for themselv

JULIE CONSTANTIN

Worked for five years at Phoenix Growth Capital, a ventu leasing firm in San Rafael, California... she and her husb made a mint when they sold their telecommunications start PFI, to Brooks Fiber (later sold to WorldCom).

WHAT: Invested $100,000 in Tripwire Security System Portland, Oregon-based startup. The company distribu free intrusion detection software to businesses and is now attempting to make money by converting its loyal customer base to a loyal, *paying* customer base.

WHY: The software is very popular with a number of America's largest corporations and with government sector.

—Michelle Jef

Know of any interesting angels? Email them to ericp@forbesasap.c

SHOW ME THE MONE

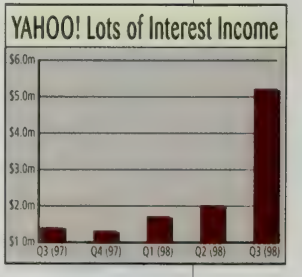
Where does Yahoo earn its money?

TOUTED AS ONE OF the few Internet companies making money, Yahoo seems to defy gravity. But in fact, some of that buoyancy may be hot air: Most of Yahoo's celebrated earnings have not come from selling goods and services.

In the third quarter of 1998, Yahoo reported earnings of $16.6 million (15 cents per share), of which an astounding $5.2 million — or 31% — came from the interest generated from the company's cash holdings of $430 million. For fiscal years 1997 and 1998, Yahoo's interest income accounted for nearly 40% of the bottom line. Analysts project that interest will make up about a third of this fiscal year's earnings as well.

It seems like a lot, it should. Compare this with other portals such as Excite, which regularly reports an interest loss.

Yahoo's high interest income is also unusual compared to other technology companies. Microsoft's interest income represents only about 15.5% of its earnings, Cisco's just 12.5%.

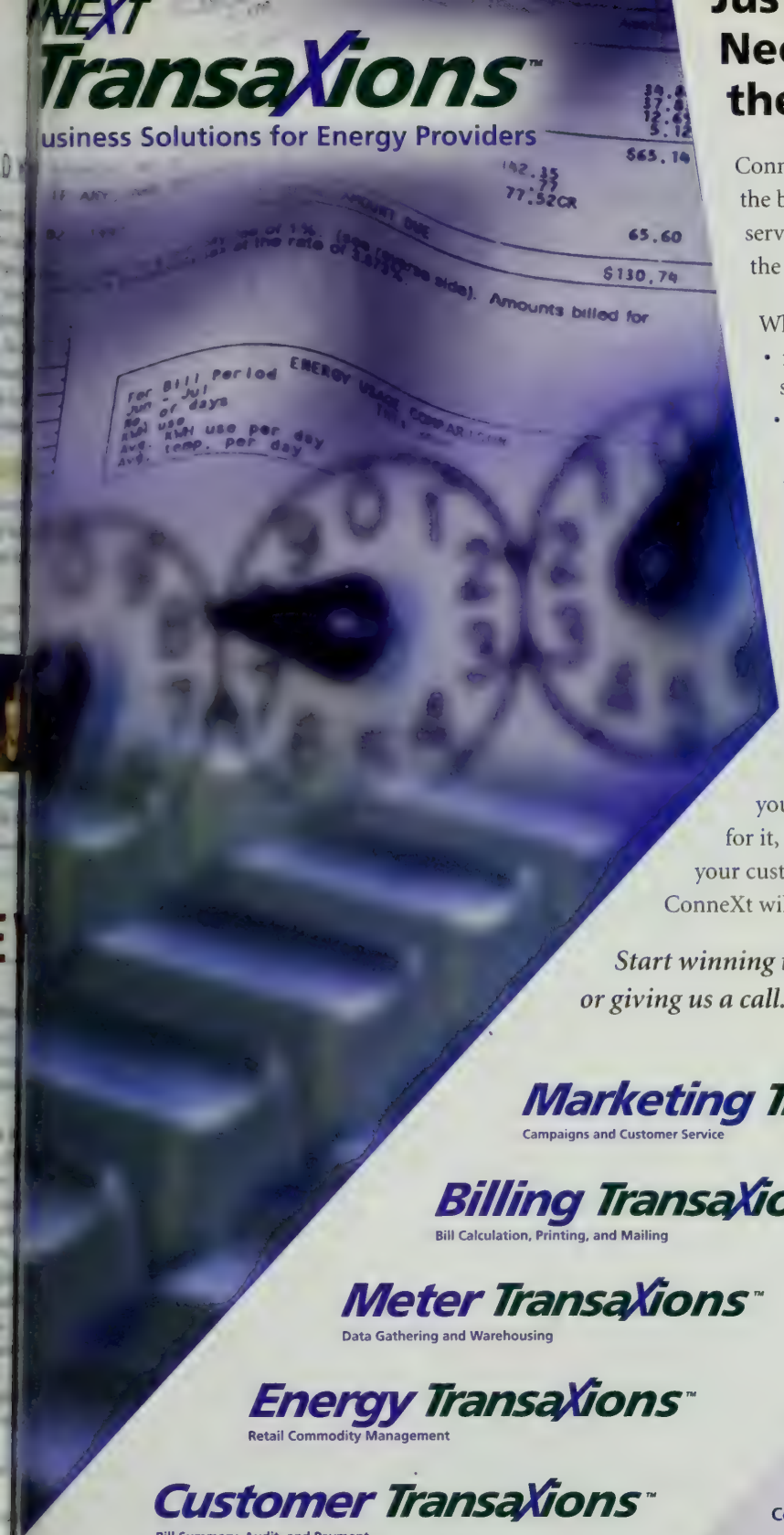


Where else does Yahoo generate earnings? Banner ads. Seventy-four percent of its 1998 third-quarter revenues ($53.6 million) came from banner ads. Of this, a little less than 10% was barter ads, which translates into no cash profits for the company. Another 8% of banner ads was bought by Softbank. And Softbank paid $240 million for a 30% stake in Yahoo (one reason the company has so much cash). So, in some sense, Yahoo selling ads to itself.

Yahoo's third major cash source, accounting for 26% of its third-quarter revenues, came from commerce partnerships — for example its deal with E-Trade to direct traffic to the online broker's Web site. But such commerce partnerships typically include substantial banner ad campaigns.

None of this is to suggest that Yahoo profits are tainted... only that folks who invest in a company solely on the strength of its reputation should take a closer look.

— David Raymo



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Inside Trader

A Toast to Toasters

A new breed of companies is betting that computers will become more like appliances.

By Geoff Baum

WHAT DOES YOUR KITCHEN look like? It probably looks a lot like mine, filled with appliances designed to perform specific tasks. The toaster toasts bread; the refrigerator keeps food cold; the can opener opens cans.

Could this same appliance model work in the computing industry? A new breed of companies with names like Network Appliance, CacheFlow, and Whistle Communications thinks it can. Just like the kitchen appliance makers of yesteryear, these startups design machines to perform specific business tasks better than general-purpose devices. These appliances don't have the flexibility of, say, a Sun Microsystems server, but if you're using them for dedicated tasks, they can increase systemwide performance, reduce complexity, and simplify maintenance.

The appliance idea isn't new. In the mid-'80s Cisco Systems developed a specialized device, the router, that off-loaded the packet-routing burden from general-purpose servers. Cisco's router improved networking speed, and corporate customers couldn't get enough of it. Today the networking giant is worth more than $140 billion.

In many ways Network Appliance is following in Cisco's footsteps. The Santa Clara, California-based firm received initial funding from the same legendary venture capitalist who financed Cisco: Sequoia Capital's Don Valentine. And the company serves a huge existing market that, like packet routing a decade before, is being handled inefficiently by the general-purpose servers from Sun, Silicon Graphics, Hewlett-Packard, Compaq, and Dell. NetApp filers do one thing: They move data at high speeds from the network to the individual hard drive, with little or no maintenance required. Customers use NetApp products to make large amounts of data accessible over networks. To do this, the firm designed an operating system, custom filing software, and customized hardware that cuts out the unnecessary complexity of competing general-purpose devices.

The company's financial performance has been impressive. In the second quarter of fiscal year 1999, revenues grew 71% from the previous year to more than $65 million. Profits also grew by 71% during the same period, reaching $8.4 million. Large corporations such as Boeing, 3Com, and NationsBank are customers. Merrill Lynch's Steven Milunovich rates the company "a buy" and calls it "the next major computer company."

Privately held CacheFlow has a similar strategy. That should not come as a surprise since the Sunnyvale, California-based company was started by Michael Malcolm, one of Network Appliance's original founders. CacheFlow's machines are designed specifically to speed the download of Web pages to users. Like Network Appliance's filer, the operating system developed by Malcolm and his team uses specialized software that avoids many features found in general-purpose machines. CacheFlow has several large customers, including Pacific Bell, Hughes Network Systems, and Adaptec.

Other appliance vendors are focusing on the much-neglected small-business market. Whistle Communications, a venture-backed startup based in Foster City, California, makes a specialized, easy-to-maintain server, the InterJet, that provides small businesses with security, routing and email capabilities, secure remote access, and a Web server, all in one shoe-box-sized machine. The InterJet can't be used [for] general-purpose computing, but that's [exactly] what most small businesses need. Th[ey] have PCs for that. Small companies ne[ed] a machine that can give them email ca[pa]bilities and a Web presence without requ[iring] an army of IS workers to maintain t[heir] site. Other startups like Encanto Netwo[rks] and Cobalt Networks are competing [in] Whistle's space, and the company also h[as] to outmaneuver bigger players with m[ore] marketing dollars (Intel recently announc[ed] its entry into the small-business appliance market). But Dataquest analyst James Stat[en] is impressed with the company's ea[rly] progress. Says Staten, "Whistle has the b[est] business model, ease of use, and was t[he] first company to get its machi[ne] on the market."

The appliance ma[r]ket is only now getti[ng] started, and as compu[ting] ing gets more compl[ex] and data demands i[n]crease exponential[ly] expect to see new e[n]tries in the field, ea[ch] focusing on its ow[n] specific slice [of] computing. La[st] last year St[un] and Oracle a[n]nounced a joi[nt] project to develo[p] a specially design[ed] heavy-duty database device, lending add[i]tional validity to the appliance concep[t]. How large is the overall opportunity f[or] appliance servers? Staten thinks the ma[r]ket will grow from $2 billion in 1998 [to] more than $16 billion by 2002. That's b[ig] enough to make early investors in Netwo[rk] Appliance, CacheFlow, and Whistle ver[y] very rich.

Geoff Baum is a cofounder of garage.com, a high t[ech] capital firm that specializes in startup finance. He m[ay] hold financial positions in companies listed.

Illustration by Michael Wh[ite]

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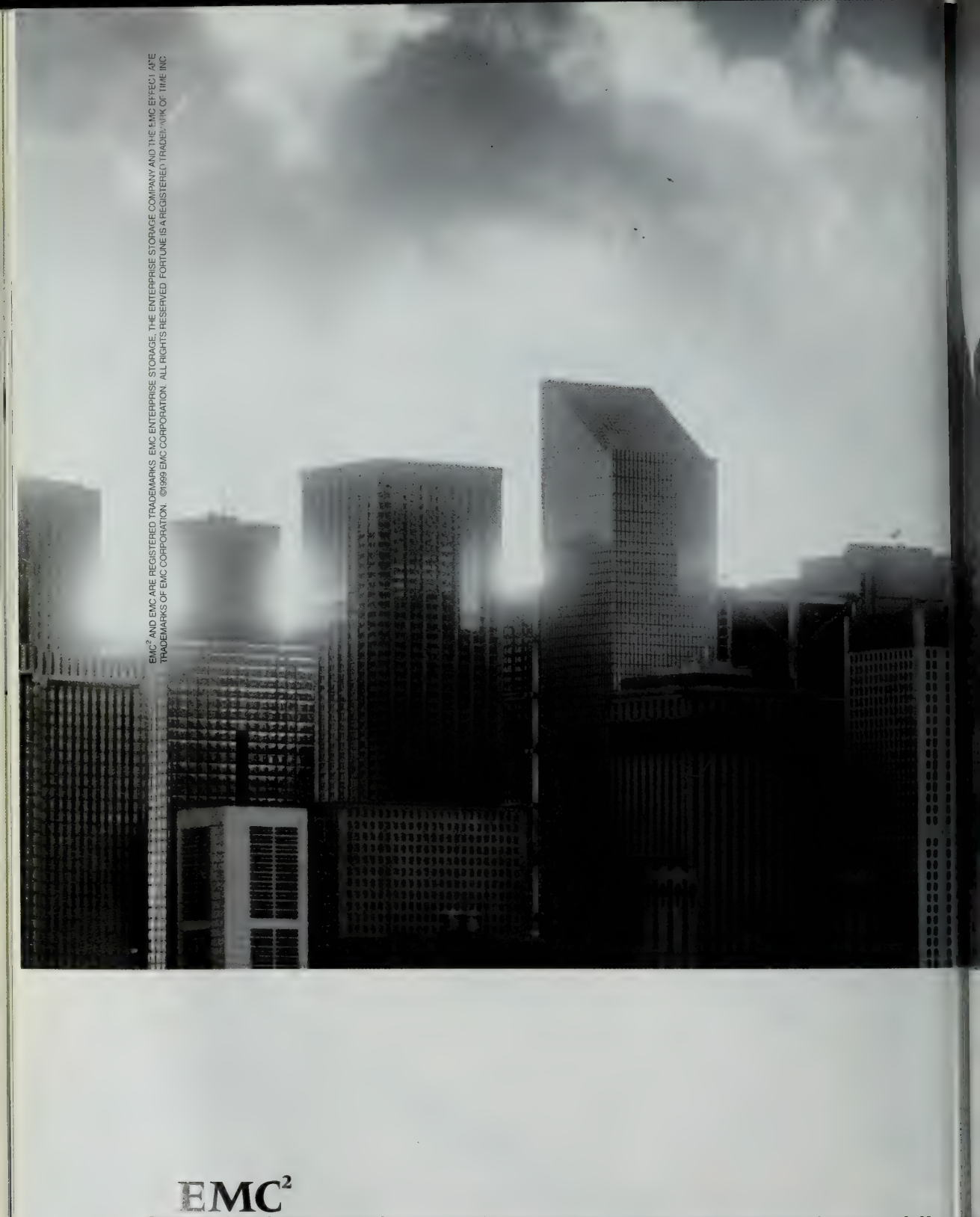

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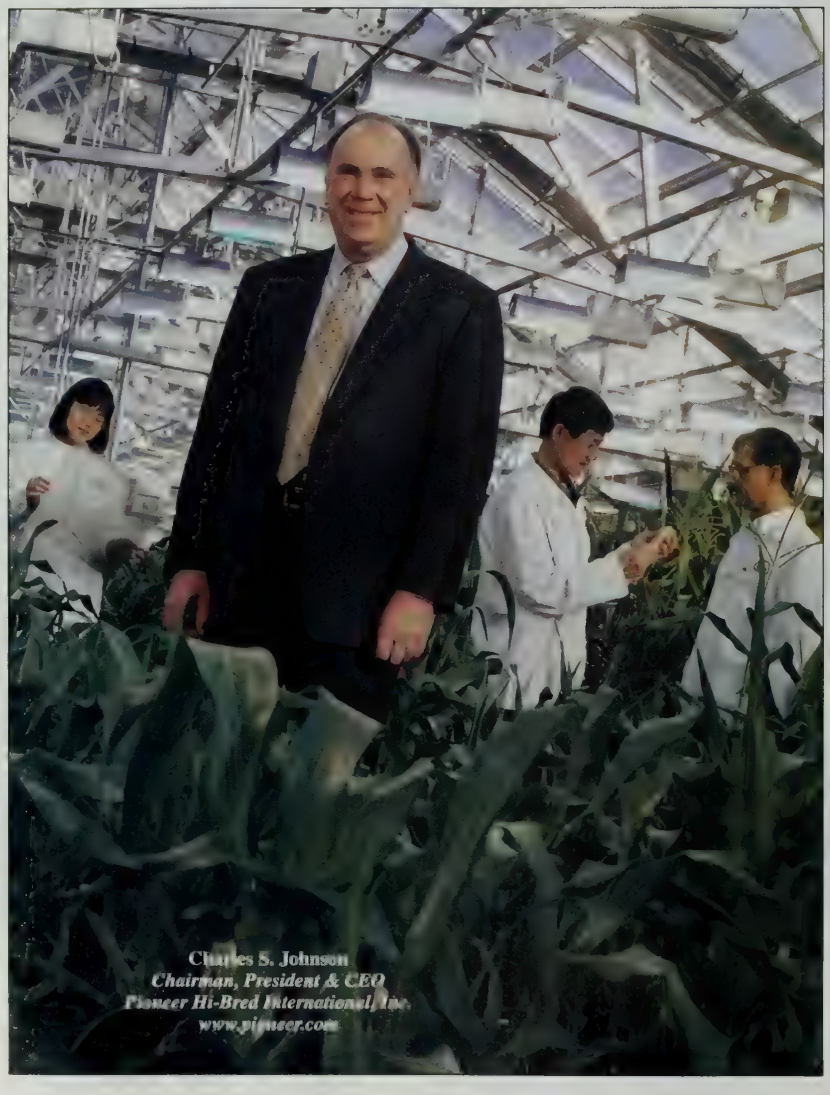

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Net vs. Norm

Why would a smart student enroll in an online college? How about convenience, high-quality information, and low cost?

BY DAVID H. FREEDMAN

NOTHING BUT HOMEWORK

The Professor Is In Baker College teacher Jill-Marie Bauer can run her online English composition class from her living room, while keeping an eye on her three children. Her students could be anywhere as well. Below: Bauer on campus with two of her online students.

IT'S EASY TO MISS the main campus of Baker College, embedded as it is in a fast-food and gas-station-crammed commercial strip, right alongside a vast discount car-parts emporium.

Part of the problem is that the college's signage fits in a little too well. No weathered bronze plaque mounted on stone pillars for Baker; it gets by with an internally illuminated, ground-mounted marquee displaying the sort of simple-but-slick logo that PepsiCo would use if it added a chain of universities to its portfolio. The campus comprises squat, featureless brick buildings and a neat row of shacklike structures.

Okay, so nobody would mistake Baker for Princeton. Baker's students don't care. In fact, a growing percentage of them have never actually seen the campus. That's because Baker is busily transforming itself, at least in part, into an entity that old fogies who graduated from college way back in, say, 1995, wouldn't recognize. Baker is going virtual.

To be sure, no one's going to swap a shot at Harvard for a 15-inch classroom anytime soon. But Baker, along with a growing cadre of other schools that run themselves more like corporations than ivory-towered institutions, is eyeing an expanding new market: people who want the same thing from college that Amazon.com customers want from buying books—convenience, speed, high-quality information, and low cost.

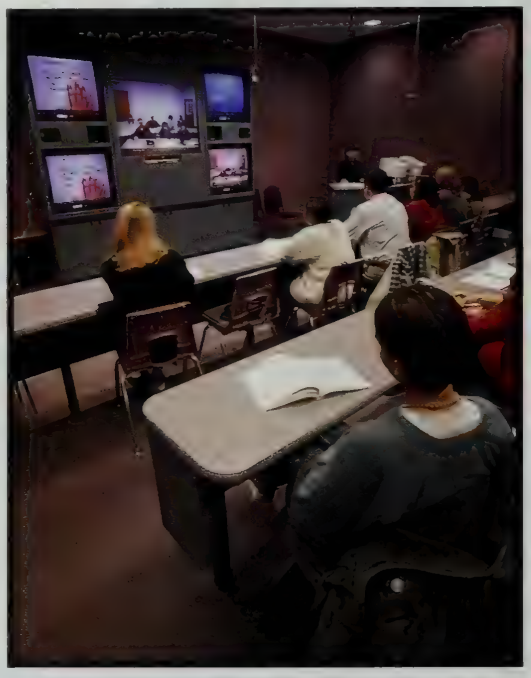
Can online schools possibly provide anything to equal a conventional college

Photography by Peter Yates/SABA

education? That actually may be the wrong question. Instead, ask: Can they provide something better?

The concept of "distance learning" — that is, of taking courses administered by schools and teachers who aren't physically near the student — is as old as correspondence courses. But the University of Phoenix added a crucial new twist in 1989 when it began offering MBAs via the Internet. The University of Phoenix is a private, for-profit corporation that operates some 52 "campuses" — often no more than 5 to 10 classrooms — throughout the United States. Today, Phoenix remains one of the most successful purveyors of Internet-based degrees, with some 5,200 online students.

But other for-profit corporations are now getting into the business, including Sylvan Learning Systems and San Francisco-based startup DigitalThink. So too are a range of established public and private colleges and universities. For example, more than 100 public and private institutions in California offer at least some courses online. Among top-notch institutions, Duke University and — not surprisingly, given its Silicon Valley ties — Stanford University are leading the virtual-education charge.



Classroom of the Future? Besides offering online courses, Baker also allows students at different campuses to sit in on interactive videoconference classes.

Yet, for all this flurry of activity, there's a sense that the market is inherently limited. In the case of the University of Phoenix, the online students are older (in fact, they must be at least 23 to even enroll) and typically work full-time — about 60% of Phoenix's students have their $25,000 MBA costs fully or partly reimbursed by their employers. Thus, the program largely attracts people who wouldn't be conventional college candidates anyway.

And the traditional universities that offer online courses seem to do so half-heartedly — more to get their feet wet than to change the way they teach. Although Duke is a leader in the online education field, it charges about 70% more for its online MBA than for the same degree earned the old way, hardly the cornerstone of an aggressive expansion plan. "A lot of schools have been trying to get online programs through their faculty councils for three years, and all they ever do is get ready to get ready," says Robert W. Tucker, head of Phoenix-based research assessment firm InterEd. "Then they end up trying to shoehorn a traditional classroom into a virtual one."

Baker College is different. The main campus is on the dreary outskirts of Flint, Michigan, a tired automobile manufacturing town that has seen the number of jobs offered by General Motors alone dwindle from some 77,000 in 1978 to fewer than 33,000 today. But Baker is nothing if not optimistic. The broad road leading onto campus is proclaimed Opportunity Avenue. As if to live up to that implied promise, parts of the campus are clogged with construction equipment, concrete foundations, and staked-out plots.

Edward Kurtz has been Baker's CEO since 1968, when he was 26 and the school was six rooms over a paint store in downtown Flint. Back then, teachers regularly let students run downstairs and feed the parking meters. In those days, Baker was dedicated to training secretaries for the auto industry. But Kurtz was quick to broaden the school's mission, and the college was soon adding more courses and programs, recruiting students through high schools, constructing new facilities, and converting Baker to nonprofit status to boost credibility and make its students eligible for state and federal aid. Now some 5,000 students attend the Flint campus, and another 11,000 students attend Baker's other nine campuses around the state.

Though some 28% of Baker's students graduate with bachelor's degrees, Kurtz, a hearty Burl Ives type who is now 55, has kept Baker focused on careers, especially in health care, technical fields, and business management. "We're less concerned with making you a well-rounded individual than we are with making sure you get a good job and do well at it," he says. That pragmatism is reflected in Baker's financials: Over the past five years, the school's revenues and net assets have increased at an average of about 15% a year, to $55 million and $70 million. Such growth is impressive given that it has been achieved despite a complete absence of state or federal funding — even any fund-raising. To control costs, Baker relies heavily on part-time instructors still employed in the field in which they teach. Kurtz holds adminis-

Traditional universities seem to be offering online courses half-heartedly. Duke charges more for its online MBA than for the same degree earned the old way, hardly an aggressive expansion plan.

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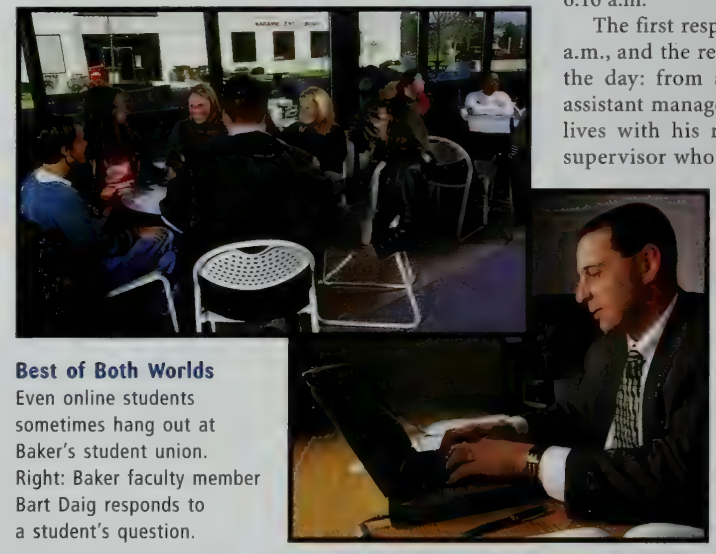
trative expenses down by, among other things, stuffing his and his minimal staff's offices into a tiny former print shop.

But a tour of the Flint campus, drab as the buildings may be on the outside, shows little sign of penny-pinching. The broad, handsomely carpeted and wood-trimmed hallways, pristine classrooms—some equipped with rows of state-of-the-art computers—and well-appointed library, gym, and student center, compare favorably in many ways with the facilities of the Midwestern school I attended. The difference is that at my alma mater, tuition is now $23,000 a year. At Baker it is less than $5,300, and entering freshmen get half off if they earned a 3.5 grade point average in high school.



Best of Both Worlds
Even online students sometimes hang out at Baker's student union. Right: Baker faculty member Bart Daig responds to a student's question.

Kurtz also has recognized, however, that no matter how inviting and well equipped a classroom is, a growing number of students would just as soon skip the physical niceties and take college as a pure transfer of information. "The key to the success of the college of the future isn't product," says Kurtz. "It's delivery." And that's why Baker's 13th and fastest-growing campus, founded in 1994 and now claiming more than 2,400 students, is in cyberspace.

No Time to Waste

KEVIN LEFFLER IS STOOPED over, tottering slowly across the classroom. "You're not going to mess with my benefits," he shrieks, in a quavering, high-pitched voice, waving an imaginary cane. The class laughs at Leffler's imitation of a senior citizen heading to the voting booth. Then Leffler stands up straight—he looks like a leaner Chevy Chase, handsome in a slightly goofy way—and addresses the class in his natural voice, which is deep, resonant, and friendly. "When do you vote?" he asks.

"When I have time," calls out a student.

"If it's sunny," says another.

"Is it free?" yells a third.

The class is Human Resource Management, and Leffler has made his point: The young will be burdened by a dysfunctional Social Security system as long as the elderly continue to vote more diligently than younger citizens. In this fashion, Leffler has kept his students more or less riveted for nearly an hour, guiding them through heated, comical, and sometimes even touching discussions of various types of discrimination.

Could an online course possibly compete with this? Actually, the question isn't hard to tackle since Baker happens to offer the same course online. Baker's online courses are similar to the format pioneered by the University of Phoenix. Essentially, the instructor and about a dozen students use groupware and an Internet connection to swap email notes that are broadcast to the entire class, with the option of sending private notes. I am "present" for the first day of the class, which means that I receive instructor Bart Daig's syllabus and welcome message. His note includes a folksy little bio in which we learn, among other things, that Daig grew up in the nearby town of Fenton, lifts weights and hunts, and has a beautiful wife who treats their dog like a child. Daig also tacks on an assignment: to turn in a biography within two days to share with the class. His message is sent out at 6:16 a.m.

The first response comes in at 7:03 a.m., and the rest drift in throughout the day: from a 20-year-old second assistant manager at McDonald's who lives with his mother, an insurance supervisor who likes to fish, a recent high school graduate looking forward to leaving the state. Most of the respondents also take the time to offer bits of congratulations and encouragement to others. Daig makes a point of saying something upbeat to everyone. It is as if I've signed on to a support group chat room.

But there isn't much time to waste. Like most online courses, this one will squeeze into six weeks the same material covered in a 10-week "on ground" (or on-campus) course. That evening Daig sends out the first "lecture"—an informal, untextbook-like spiel that touches on some of the problems that face today's human resource managers, including employee turnover and workers dealing with overseas assignments—along with discussion questions. Soon students are responding to the questions, often illustrated with experiences from their own jobs. One student, for example, notes that absenteeism dropped dramatically at her employer when the company offered a $75 bonus for perfect weekly attendance. Another opines that large child-support debts force some workers into excessive overtime and demoralization. Both personal and classwork-related comments—

No matter how inviting and well equipped a classroom is, a rapidly growing number of students would just as soon skip the physical niceties and take college as a pure transfer of information

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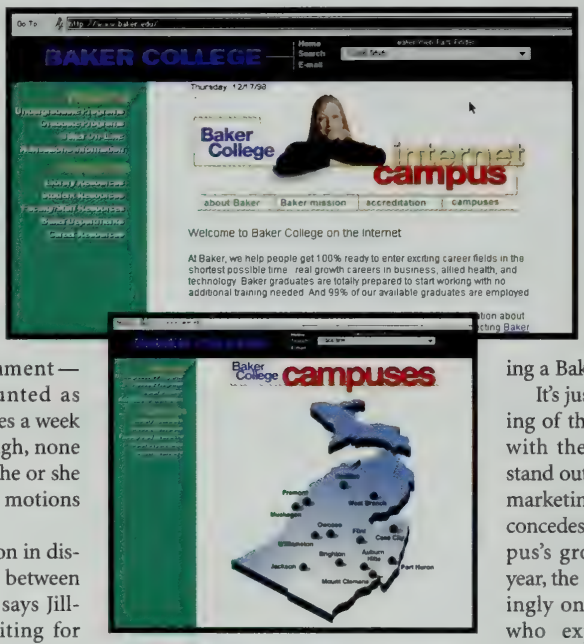
usually in separate notes—fly back and forth. The last note of the day comes in shortly before midnight, and things are rolling again by 6:30 the next morning.

As I follow the course for the next few days, I am struck by how interactive, emotionally charged, and generally insightful the discussions are. When he isn't dishing out assignments, discussion questions, and lectures, Daig is mostly a bit player, stepping in with a provocative comment here ("What could companies do about this?") or an academic reminder there ("Grammar is important with assignments"). All the students participate. They have to; their grades are largely based on their contributions to the discussions, and any day they don't provide a substantive comment—including weekends—is counted as an "absence," though two absences a week are acceptable. The fact is, though, none of the students sends email as if he or she were merely going through the motions of logging on.

This emphasis on participation in discussion is the biggest difference between online and on-ground classes, says Jill-Marie Bauer, who teaches writing for Baker in both environments. "On-ground it's easy for a student to sit in the background all week, then cram the work into a weekend and still do all right," she says. On the other hand, says Bauer "if you don't participate online, you almost don't exist." She has found that 1 or 2 students out of a typical online class of 15 will prove unable or unwilling to keep up with the email discussions and drop out.

So which version do students get more out of, online or on-ground? Baker often gives the same tests to its online and on-ground students, and based on anecdotal information, the online students tend to do a little better—though that may have more to do with the fact that online students are typically older and thus more motivated and disciplined. To find out more, I hang out at the student center early one evening.

Cramming at a table before his night class in accounting is Peter Pellow, an athletic-looking, 25-year-old with scraggly bangs. He just finished a bachelor's degree in accounting in December. Pellow tried one online course—history—and didn't



Fastest-Growing Campus Baker uses the Internet not only as a campus but also to attract students to its 10 traditional campuses, all of which are growing—though not as quickly as online enrollment.

much care for the experience. "There was way less interaction between the students and the professor," he says. "There's not as much chance to learn from the other students, either."

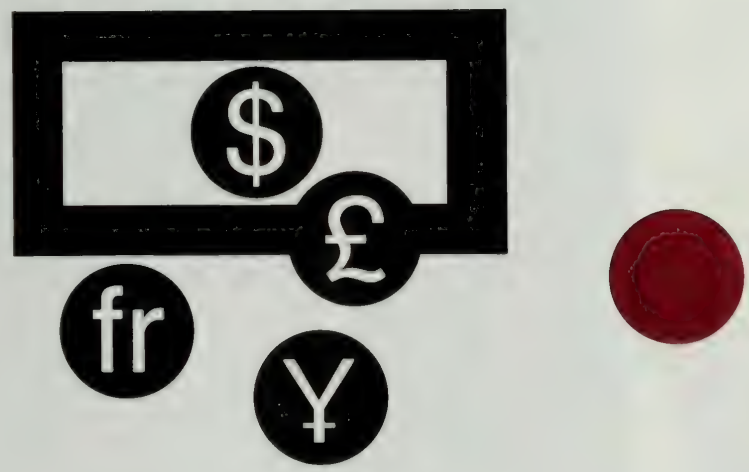
I find some dedicated onliners in the center as well. Kristy Bushon, 21, will graduate in the spring with a bachelor's degree in business administration, having taken the majority of her classes online—more than 20 courses in the past two years. "I participate much more in online discussions than I do in regular classes," she says. "It's great for people who are shy. People don't know who you are, so you can really let them know what's on your mind."

Across the campus in one of Baker's dorms, 22-year-old Jennifer Ignash proudly shows off her brand-new, 333-megahertz Gateway PC, which she purchased for $1,300, to take online courses in history, art, and architecture. As far as Ignash is concerned, learning online and living in a dorm is the best of both worlds. "I get to study here in my home on my own time," she says, "but if I need something, people are right next door." After graduating this summer with a bachelor's degree in business administration, she hopes to work at a Disneyworld hotel while earning a Baker MBA online.

It's just this sort of mixing and matching of the traditional college experience with the online one that makes Baker stand out, at least in Michigan. But Baker's marketing vice president, Michael Boedy, concedes that to maintain the online campus's growth rate of more than 60% a year, the school will have to focus increasingly on a national market of students who experience Baker only online. Already, 20% of Baker's online students live outside Michigan. That percentage is likely to grow as Baker steps up its advertising—the school is now spending about 11% of its gross revenues on marketing. It may be hard to imagine Baker becoming a leading national institution. But Baker could become a role model for other smaller, innovative schools, perhaps allowing them to encroach on the market share of the better-known, traditional colleges and universities, ultimately forcing these venerable institutions to establish their presence online in a serious way.

This suggests an interesting question for a gambling pool: What percentage of Harvard's class of 2018 won't know what ivy looks like? ■

To maintain its growth rate of more than 60% a year, Baker will have to focus on students who experience the school purely online. Already, 20% of the online students live outside Michigan.



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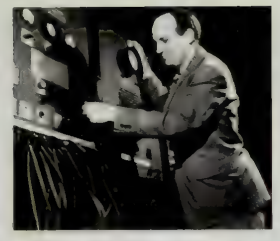


Iron Age, 1945–Today P.43 *The complete, concise history of the supercomputer.*

REMEMBER MAINFRAME COMPUTERS? For 30 years they dominated technological life—and society's imagination. From *Desk Set* to *2001: A Space Odyssey,* the giant computer served as a metaphor for all that was empowering—and forbidding—in the digital revolution. Mainframes, or what we now call supercomputers, symbolized the triumph of science and statistics, the conquest of space, the search for a single, universal solution to every question.

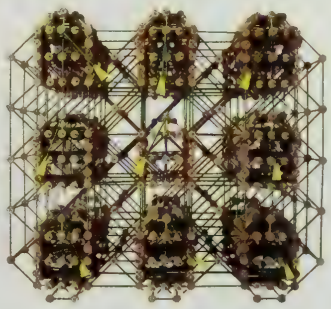
Then they were gone, killed off by two unkempt kids (Jobs and Wozniak) in a Silicon Valley garage. The Apple II appeared in 1977...and the personal computer stole the world's imagination. The ultimate indignity came in 1981, when IBM announced the PC. Now even the quintessential Big Iron company had shackled its future to the desktop brats. Personal computers represented freedom, the common man, democracy. No more fealty to MIS pharisees and the mainframe idol they worshiped. No more begging the accounting department for your printout. And no more $10 million line items in the budget just because the chief technologist said, "Trust me, it's important."

Blue Mountain P.50 *A journey to Los Alamos National Laboratory, birthplace of the atomic bomb and home to the world's most powerful computer.*

PCs also stole the heart of technology for another reason: their connection to Moore's Law. They were, after all, little more than a microprocessor in a box. And that meant, even as mainframes were still handmade from giant spiderwebs of wire with tiny magnetic rings at their junctions, PCs were, at their heart, silicon. And that placed them on a power curve of development unlike anything the world had ever known. Every couple of years a new, more powerful personal computer generation appeared—and it wasn't hard to project this exponential curve of microprocessing and watch it one day overtake, then surpass, the lazy incline of antediluvian Big Iron development.

Lusting After Rusty Iron P.56 *Collecting old mainframes is a lesson in eccentricity.*

Fortune seemed to smile on personal computing and turn her head from Big Iron. The death knell for mainframe computing tolled, or so it appeared, in the mid-1980s. IBM, always the gold standard for computing, shockingly found itself in deep financial distress—being pulled under by its mainframe ► *48*



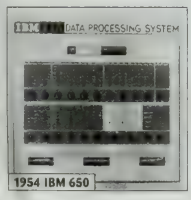
Massive, Parallel Supercomputers P.60 *How supercomputers work (it's as easy as painting a fence) and where they are heading.*

45-TODAY: THE E

design was the first to use ferrite-core memory — which became the world standard until it was supplanted by transistors.

1953 MIT Whirlwind

650
1954 US
IBM
This computer was neither small (it was the size of a medium-size room) nor inexpensive ($3,250 a month), but it filled such a crying need for


1954 IBM 650

American business that Watson Jr. ended up calling it "the Model T" of computers — rugged, simple, and serviceable by the standards of the day. More than 2,000 were finally rented, pouring profits into IBM's coffers, while the far more glamorous 700 series drew the paparazzi.

704
1954 October US
IBM
To the manifest virtues of the 701, the comprehensively upgraded 704 added the missing piece — speed. It was anywhere from 2 to 20 times faster than its older sibling. A powerful machine, the 704 was also the first widely marketed computer with magnetic core memory, and it was the very first to employ floating-point arithmetic and software that approached the concept of an operating system. The 704 made IBM the proud provider of a world-class scientific computer, and more important, made it clear who was the leader in the rapidly expanding industry.

1954 Ferrite-Core Memory

Pegasus
1956 UK
Ferranti
Easily 20 years ahead of its time, Pegasus — also known as the Ferranti Packaged Computer — decreased mainframe construction costs by using off-the-shelf components assembled into small, easily built, and easily replaced modules. This modular construction became fundamental to the entire mainframe industry and carried forward into the ubiquitous micros of today.

1956 Ferranti Pegasus

305 RAMAC
1956 US
IBM
Built as a fast-access business computer and optimized for high-volume record handling, the RAMAC made its name from its most outrageous component — the Random Access Method of Accounting and Control. Otherwise known as a hard disk, it was invented at IBM San Jose between 1953 and 1956. A five-megabyte disk the size of a large refrigerator may have seemed a tentative start, but today, almost 50 years later, your computer still has a hard disk. (For good measure, IBM San Jose invented the floppy disk in 1971.)

1956 IBM 305 RAMAC

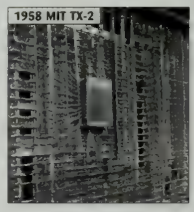
LARC
1956 US
Sperry-Rand
Arguably the earliest attempt at a supercomputer, LARC — the Livermore Atomic Energy Research Computer — was also the last and largest number grinder to use decimal architecture. Built by Sperry-Rand, LARC pushed the envelope with sheer size rather than with technical innovation; it was considered an investment in learning by its constructors, who knew that commercial customers for such a huge machine would be scarce.

1956 Sperry-Rand LARC

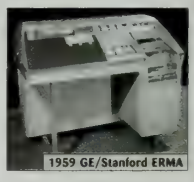
SAGE
1958 July US
IBM
One of the phenomenal artifacts of the Cold War, the Semi-Automatic Ground Environment was nothing less than a network of linked mainframes to track hostile aircraft in real time and direct the retaliation against them. A Pentagon-sized budget paid for 54 computers — 27 hot systems and 27 backups — in 27 huge but unobtrusive command centers scattered throughout North America.

As was often true, IBM ended up with a better deal than the Department of Defense. The knowledge that IBM gained about core memory, real-time control, networking, redundancy, uptime, and exotic interfaces (like light pens) was nearly priceless. SAGE itself, a long-term project hobbled by short-term vision, was rendered obsolete by ballistic missiles before it was fully deployed in 1963.

TX-2
1958 US
MIT
This roomful of transistors at Lincoln Labs, notable for its power, was less remarkable for what it was than for what it did: run Sketchpad, Ivan Sutherland's pioneering interactive computer graphics program. "You can't buy a system today that does all the things that Sketchpad could," Alan Kay said of it. "For a small number of people... [it] was like seeing a glimpse of heaven."


1958 MIT TX-2

ERMA
1959 US
GE/Stanford Research Institute
Manual preparation of bank statements used to be one of the most labor-intensive desk jobs in American commerce. In the mid-'50s Bank of America considered their options: They could automate, or by 1960 they could try to hire about a third of California's high school graduates.


1959 GE/Stanford ERMA

Choosing the former got them the Electronic Recording Method of Accounting — ER

1958 IBM SAGE

1959 IBM 7090

7090 (709TX)
1959 November U
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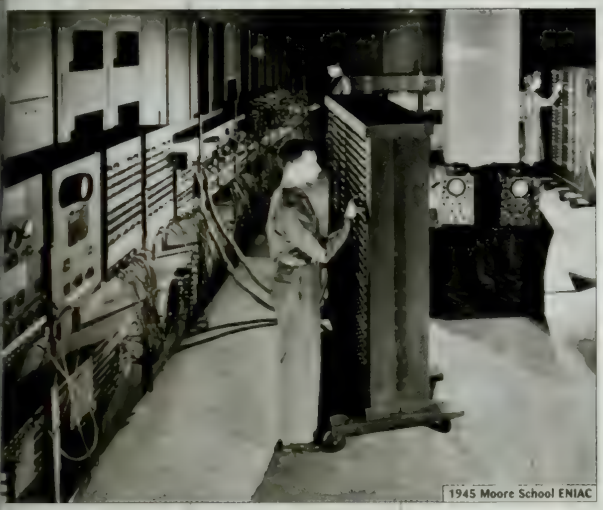
THE IRON AGE 19

By Kip Crosby

ENIAC, ILLIAC, RAMAC — the names sound archaic and monumental, like a dynastic line of pharaohs. In their day, these (literally) giant computers represented the zenith of postwar technology, design, and manufacturing — machines so extraordinary that their power was unimaginable. Now, a half century later, dwarfed — functionally if not physically — by what followed, they seem as quaint as spinning wheels. Yet, having left these computers behind, we at last have gained perspective on their true contributions, their odd beauty, and their place as the greatest icons of their age.



1945 Moore School ENIAC

ENIAC
1945 US
Moore School, University of Pennsylvania
The first practical electronic digital computer in the United States, ENIAC — the Electronic Numerical Integrator and Computer — was built to compute gunnery tables in World War II. Decimal architecture and a need for tedious rewiring when programming imposed severe limits, but this computer remains widely respected as a pioneer. If nothing else, it proved that calculating systems with miles of wiring and 18,000 vacuum tubes could be reliable.

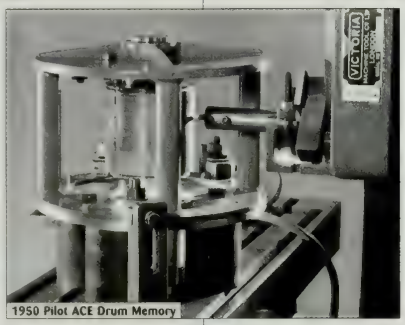
Mark I
1948 June UK
Manchester University
The next step was to build a computer whose programs, as well as data, could be stored in memory while they were executed. The honor of building the first "stored program" computer fell to Manchester University in England, where a small prototype was successfully tested in the summer of 1948.

1949 Cambridge EDSAC

EDSAC
1949 May UK
Cambridge University
EDSAC — the Electronic Delay Storage Automatic Calculator — was the first practical full-scale stored-program computer. It owed much to the design work done at the Moore School but went beyond ENIAC in important ways. The EDSAC used sound waves in tubes of mercury — mercury delay lines — as storage for bits of data that were waiting to be processed.

Pilot ACE
1950 May UK
National Physical Laboratory
The earliest computer to run at 1MHz — one million cycles per second — the Pilot ACE held the world speed record for computing in its day. It followed the general pattern of other contemporary computers like EDSAC, but clever design kept its tube count low, increasing speed. In 1954 this computer was equipped with one of the world's first drum memories.

1948 Manchester Mark 1

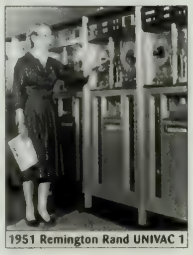


1950 Pilot ACE Drum Memory

EDVAC
1951 US
Moore School, University of Pennsylvania
ENIAC's more efficient successor was the first stored-program computer built in the United States. Superior design cut the tube count to just more than 3,500 (from ENIAC's 18,000) and resulted in a computer that could easily solve a wide range of complex problems.

1951 Moore School EDVAC

UNIVAC I
1951 March US
Remington Rand
Two senior engineers from the Moore School broke with the University of Pennsylvania and formed a company for commercial production of computers. The result, UNIVAC I, fired the public imagination by guessing the outcome of the 1952 presidential election more accurately than the pollsters. Overnight and for years afterward, "UNIVAC" became a popular synonym for "computer."

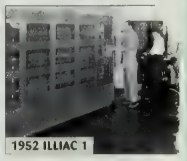


1951 Remington Rand UNIVAC 1

LEO
1951 August UK
J. Lyons & Company
England's famous J. Lyons & Company had such problems maintaining inventory for its chain of 150 tea shops that it automated its business by building its own computers. The result, LEO — the Lyons Electronic Office — became the first computer built outside the United States for commercial use.

1951 Lyons LEO

ILLIAC I
1952 September US
University of Illinois
Profiting from and improving on the design of the EDVAC, the University of Illinois did more than just build its own computer. In one stroke it pushed itself to the forefront of American academic and military computing developme a position it worked hard to maintain fo decades. All four IL computers were bri liantly conceived a beautifully built.



1952 ILLIAC 1

701 (Defense Calculator)
1952 December US
IBM
Thomas J. Watson Sr., who thought he would be in the punch card business forever, didn't want to build this box; Watson Jr., with help from an eager Air Force convinced him to do it anyway. The result wasn' the fastest computer in town, but superb IBM setup and service carrie the day; 19 copies were snapped up by universities, aircraft factories, and the military, even the staggering rental of $15,000 a month.

Whirlwind
1953 June US
MIT
Starting out as an ana pilot trainer in 194 this computer too amazing number structive and exp detours before it fruition as a fast tent, general-pu digital compute years later. It ma list because its fin

1952 IBM 701

Not just a face in the crowd.

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"It's an unsettling thought,
but if every other technology company in the
world mysteriously disappeared,
we could probably get by on NEC alone."

— *THE RED HERRING*

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UPERCOMPUTING

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1969 IBM System/360 85

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ILLIAC IV
1975 November US
University of Illinois
The era of massive parallelism was ushered in by the last and greatest of the ILLIAC series. With 64 processors and a control system that could carry intermediate results of a calculation from one processor to the next, ILLIAC IV could perform 300 million operations a second — and was equipped with main memory and disk space that comfortably accommodated the most gargantuan real-world problems. Like many other computers in this timeline, ILLIAC IV influenced an entire generation of hardware.

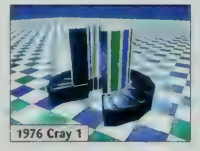
KL-10
1975 US
Digital Equipment Corporation (DEC)
Although an austere computer historian

1975 DEC KL-10

might claim that all of DEC's Programmed Data Processor machines were minicomputers, certainly the broad-shouldered KL-10 set a firm foot on mainframe turf — and carried the faintly raffish air of the whole series with it.

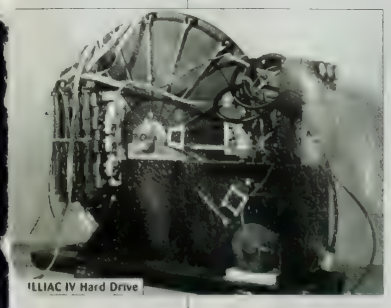
Like all PDP-10s, the KL-10 was versatile almost to a fault. You could ask it to chew on something as exciting as artificial intelligence, as colorful as movie graphics, or as dull and exacting as network time service; it remained a great computer that suffered patiently while generations of programmers learned its tricks and taught it more.

Cray 1
1976 US
Cray Research
How do you make an incredibly fast computer? Shape it like a post-


1976 Cray 1

modern phone booth, surround it with a love-seat, and cool it with stinky pink fluid. Yes, folks, it's... the Cray 1! And while no computer that Seymour Cray designed was ever ordinary, somehow this one takes the cake for visual interest.

It sucked power the way a jet engine sucks air; certainly it was arduous to program. Still, down to the migraine-inducing wiring mat and the tons of solid-copper circuit modules, this was the world's fastest computer... for years. Speed was its only priority, excuse, or love. Today, on the collector's market, even a small piece of one changes hands for $100 or more, such is the reverence accorded this strange and awe-inspiring machine.


ILLIAC IV Hard Drive

Connection Machine
1985 June US
Thinking Machines
Vaguely off to one side of all other computer development, the Connection Machine was a logical outcome of a single obsession: the imperative to make the path from processor to

1985 Connection Machine

memory as short as possible. And if Seymour Cray had a bad case of this, Danny Hillis had it worse.

These vast, eerie-looking cubes covered with blinking lights each had as many as 64,000 processors, and in later versions, as few as 4,096. Each processor was tightly coupled to its own memory. The "hypercube" array architecture determined how many processors and which ones would be put into play to suit the data being manipulated. Sound complicated? It was, and at times these boxes worked better in principle than in practice; but their peak speeds under ideal conditions were frightening. Even today, a Connection Machine stands as a radical proof for parallelism.

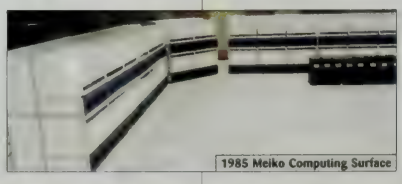
Computing Surface
1985 June UK
Meiko
The first Computing Surface was based on the transputer, a microprocessor specifically designed to be linked to other microprocessors. Using a mesh of transputers, each with its own on-chip memory, it's possible to have a computer — really a tightly coupled network of computers — execute multiple instructions on several data items at the same time. Peak speeds would seem to be confined only by the speed of light (darn!) and — as usual — by the need for dauntingly complex programming. If the hardware don't get you, the software will...

Paragon
1991 US
Intel
Intel's supercomputers take the concept of the processor mesh and make it cheap and sexy by using off-the-shelf Intel microprocessors — the long-lived 1860. Paragon architecture is organized into nodes, each node containing two processors, one devoted to data crunching and one reserved for interprocessor communications; one Paragon can contain up to 2,048 nodes, but you won't need that many! A top-of-the-line Paragon has 128 gigabytes of main memory, more than a terabyte of disk space, and is capable of 300 gigaflops (billion floating-point operations) per second; but if anybody has ever ordered

1991 Intel Paragon

one to the maximum specification, they don't boast about what they use it for.

RS/6000 SP
1993 US
IBM
Yes, IBM still builds supercomputers, but we've come a long way since the hush-hush days of STRETCH,


1985 Meiko Computing Surface

and the SP is positively splashy. One of them, using the stage name Deep Blue, was the chess-playing computer that outfoxed flesh-and-blood world champion Garry Kasparov. Another did a well-publicized great job at the 1998 Winter Olympics in Nagano. Each node of the newest SP, released last April, contains up to eight PowerPC 604e processors at up to 332MHz

1993 IBM RS/6000 SP

clock rate, up to 4 gigabytes of RAM, and other jaw-dropping buzz-numbers. Deep Blue had 32 of these nodes; the SP now being built for the San Diego Supercomputer Center will have more than 1,000 nodes, each powered by an improved processor.

At that point, mainframe computing will be on the trail of the long-sought teraflop — the execution of one trillion floating-point operations per second. Hold tight! And the next time you hear someone pontificating about the death of the mainframe... laugh. ■

All photos courtesy of The Computer Museum (TCM) except for the following: ENIAC, Pegasus — Corbis/Bettmann; Mark1, LEO, Atlas — National Archive for the History of Computing, Manchester University; EDVAC, RAMAC — AP/Wide World; IBM Burroughs 5000 — Archive Photos; SAGE, SABRE, IBM System/360, IBM RS/6000 SP — IBM Archives; Cray 1 — SGI; Meiko Computing Surface — Meiko; Intel Paragon — Intel.

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memory; and an operating system that was probably unsurpassed for a decade. For all this,

customers paid the price of programming in ALGOL (a language IBM sneered at) and a stiff penalty in raw speed, but the sheer elegance of these machines made Burroughs users unswervingly loyal.

SABRE
1964 US
IBM
As commercial aviation became a consumer phenomenon, airlines began drowning in the manual paperwork needed to manage reservations. They cried out for a real-time mainframe network, and only IBM — having built SAGE — had the expertise to supply one. American Airlines forked over the price of half a dozen Boeing 707s but had little cause to regret its exposure as a pioneer.

System/360
1964 April US
IBM
Lionized by the public for its well-touted achievements, IBM was nonetheless in deep trouble and knew it. The company had grown so large that its strategic internal communications were beginning to fail. Multiple incompatible lines of computers cost a fortune to support and became less attractive to prospective customers. It was time for IBM to put muscle behind its existing strategy or put itself on a comprehensively new course.

Between 1961 and 1964, the company manifested its new course by committing $5 billion dollars to the production and promotion of System/360 — the first line of mainframes, from smallest to largest, with near-complete internal compatibility. IBM's riskiest move ever, sometimes called the "greatest single

product introduction in American history," tripled the number of IBM computers in use — and more than doubled the company's revenues — in the next five years.

6600
1964 August US
Control Data Corporation (CDC)
CDC, the antithesis of IBM in both size and attitude, produced this quirky supercomputer designed by the formidable Seymour Cray. With 350,000 transistors, its teething troubles were the stuff of legend, and it was never easy to program; but in its time it was the world's fastest computer, and not shy about it. If today you sit at the operator's console, with its two round screens, and glance over at the CPU as big and solid as a bank vault, you can still feel the ghost of its greatness.

System/360 Model 67
1965 August US
IBM
By 1965 the wave of the future was time-sharing, a computer's ability to respond, immediately and interactively, to several users at once by doling out packets of processor cycles. We take this for granted today, but when it was invented a generation ago, it was a major deal requiring unprecedented engineering.

Bell Labs and several other universities, including MIT, took up time-sharing initiatives, writing their own operating systems for computers built by General Electric and Honeywell. This did not sit well with IBM, which recognized in the System/360 a platform easily powerful enough for time-sharing, if the needed adaptation could be done.

An IBM-style crash program produced a time-sharing machine, the 360/67, and a matching operating system, TSS/360. As was usual with IBM, the hardware and software were not quite the swiftest available, but the whole concept of time-sharing was validated by IBM's attention.

940
1967 US
Scientific Data Systems (SDS)
SDS in El Segundo, California, built computing's Corvettes — lovingly crafted mainframes, rugged as battleships and fiercely quick. Its top of the line, the 940, included some of the most adept first-generation time-sharing hardware. Designed, modified, and applied by great computing mavericks such as Butler Lampson, the 940

earned a place in computing history out of all proportion to the number produced.

SDS's reward was to be swallowed whole by Xerox, which discovered — soon and direly — that an office-equipment sales force was poorly equipped to sell computers best appreciated by geniuses.

7600
1969 January US
CDC
Cray did it again with one of the most uncompromising computers ever built — the columnar, V-shaped, and completely modular CDC 7600. This daunting

device was so tricky internally that although its clock rate was only about four times that of the 6600 (and a modest — by today's standards — 36MHz) the 7600 was up to 30 times faster in computation.

Lawrence Livermore National Laboratory took delivery of 7600 serial number 1 in 1969; it was the fastest computer in the world for seven years and was then dethroned by — guess what — a Cray 1.

Big Iron: Back in a Big Way

◂41 business and reduced to clinging to its PC lifeline.

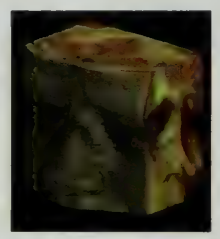
Meanwhile, a new generation of computer companies appeared—Sun Microsystems, Silicon Graphics, a revivified Hewlett-Packard—offering a new kind of computer: a kind of super-PC called a workstation. Work stations were designed expressly as mainframe killers. They did their job well. Now that the world had compact, fast computers that handled graphics with unprecedented ease—all for less than $100,000—why spend millions on some behemoth that sucked as much power out of the local grid as a small town and took a small army to run? Even better, you could link the special versions of these new computers, called servers, with hundreds of PCs into immense, even global, client/server networks. With these networks, for the first time, the microprocessor solution was better than the mainframe solution.

Size Matters, Again P.66 *Corporations are rediscovering the power of supercomputers.*

Faced with such a superior opponent, mainframe computing retreated to university campuses, intelligence agencies, and research centers, where it was relegated to the one task it could still do best: crunching billions of numbers over long intervals of time—for example, applying simulation analysis to weather patterns, performing code encryption, solving Fermat's last theorem, computing pi to more than a billion places, etc.

Techmate P.71 *Chess champion Garry Kasparov on losing to Deep Blue.*

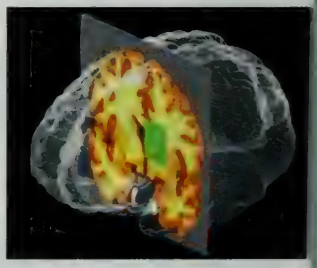
But even as Big Iron was beating a hasty retreat from the corporate world, a burst of innovation was transforming this veteran technology. Cocky new startups, such as Thinking Machines, began experimenting with a new kind of "supercomputer" that featured a radical new design: massively parallel processing (MPP). In massively parallel processing, a problem was split up into dozens, even hundreds, of subproblems that were in turn parceled out to individual processors, solved, then brought back together in a solution. What was obvious about MPP was that it was an incredibly efficient way to solve a sizable portion of the problems being addressed by big computers. What wasn't so obvious at first, but ultimately proved earthshaking, was that each of these processors could become microprocessors—say, 300 Pentium chips strung together. And that meant supercomputing could at long last hitch a ride on Moore's Law. From now on, even as PCs got more powerful, supercomputers (nobody called them mainframes anymore) could get much more powerful as well and thus perpetually maintain their advantage over the PC.



The Eternal Now P.72 *Supercomputers will never be more than what they are... inanimate objects.*

Suddenly, the same folks—Intel, Microsoft, HP, Silicon Graphics, Sun, and others—who helped bury the mainframe were now building a new generation of Big Iron. This time, though, they weren't constructing giant boxes but merely offering components and the software and networking glue to stick them together.

The modern supercomputer is not some leviathan in a warehouse like the ENIAC, or even an elegant piece of modernist sculpture like a Cray, but more like a roomful of rows and rows of earnest workers sitting in anonymous dishwasher-sized boxes, hurriedly sending messages back and forth to a room filled with a similar army of disk drives. The new supercomputers aren't pretty or awe inspiring, but they are powerful—and maybe even cost efficient. Those attributes haven't been lost on the corporations that drove mainframes from the doors a decade ago. It seems that in the intervening years companies have come to miss their Big Iron, to lust after the power only they can provide.



Piece of Mind P.78 *In the future, computers will encompass and surpass the human brain.*

Burned once, these companies and their descendants are now delicately tiptoeing around supercomputing—their staffs are attending supercomputing conferences, renting processing time on university machines, kicking a few tires. Some of the companies already have made the plunge; many will soon follow. Big Iron is not only back but perhaps triumphant. And with the return of supercomputing come all the ontological questions that we asked the first time around—only now with more validity... and greater desperation. Are supercomputers approaching consciousness? And if they are, are we building brilliant slaves, or our own future masters?

—Michael S. Malo

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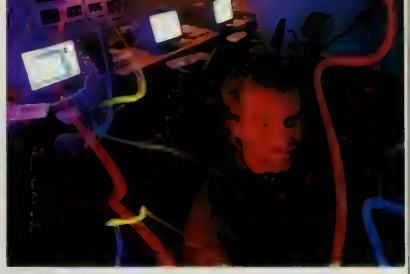
Blue M

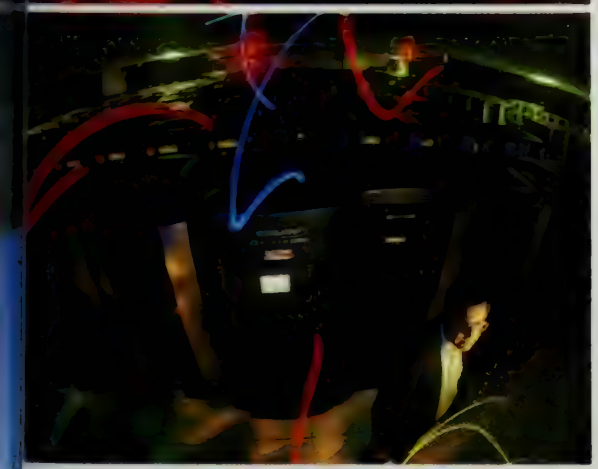
AN EXCLUSIVE LOOK AT THE WORLD'S MOST POWERFUL COMPUTE



Super Problems *Chris Barrett (upper right), head of the SIMS project, is helping city planners manage their metropolitan Delphi project director Andy White (lower top) uses a 1-teraflop me to predict the spread of wildfires. And weapons designer Mercer-Smith (lower bottom) simulates explosions on Blue tain to find defects in nuclear bombs.*

BY CAROL PICKERING

untain



"I'M HERE TO SAVE THE WORLD," whispers 45-year-old Dr. Jas Mercer-Smith. The sharply dressed man with piercing hazel eyes declares these words with such terrifying conviction that a chill runs up my back. Mercer-Smith is a 15-year veteran weapons designer at Los Alamos National Laboratory in New Mexico. He isn't the only scientist who speaks of messianic missions. Here, science is the religion, and nearly everything involves playing God.

This is, after all, the birthplace of both the atomic bomb and the supercomputer. And these days the two are becoming one. It used to be that the lab tested bombs by going out to the Nevada Test Site and detonating them — at $30 million a pop. If defects were discovered, new bombs were designed to replenish the stockpile. But now, because of the Comprehensive Test Ban Treaty, which prohibits nuclear weapons testing, the United States is forced to test its weapons only with computer simulations.

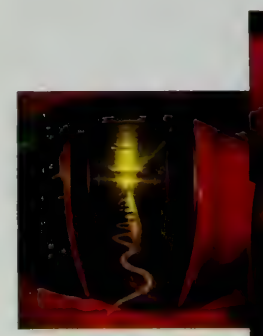
This daunting task falls to Los Alamos' physicists and their supercomputers — to people like Dr. Mercer-Smith and to machines like Blue Mountain, the fastest computer in the world and, at $121.5 million, one of the most expensive.

I am lucky enough to be the first reporter to see Blue Mountain fully assembled. After showing my credentials to a guard and passing through a full-body turnstile, I am standing in an anonymous, classified, tan building, located in an area of the lab called Technical Area A.

A massive hum emanates from behind large metal doors, and as I push through them, Blue Mountain's loud, swarming buzz fills my ears. The huge room, 11,000 square feet in all, smells clean. It's not an antiseptic clean but the white, electrical clean of ozone and insulation.

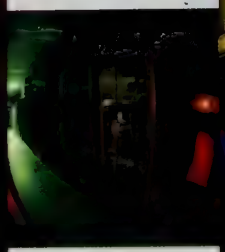
I'm immediately confronted by a wall of 48 refrigerator-high blue boxes: the 128-processor SGI/Cray Origin2000 servers that

otography by Chip Simons

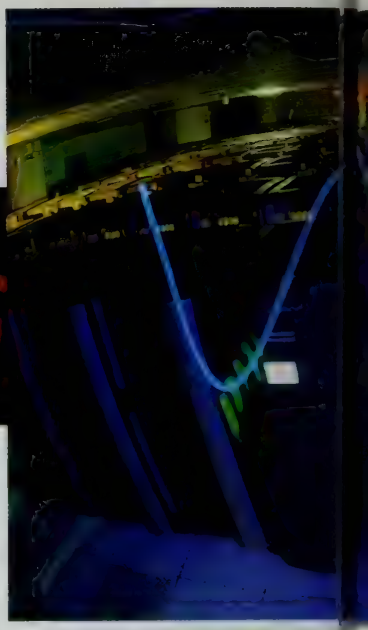


Staring into the heart of Blue Mountain...

A colossus of switches and routers...



The glowing innards of the servers...



All the servers packed together in an 11,000-square-foot room...

Water, Air, and Silicon *Blue Mountain has 20 megawatts of power, 40,000 gallons of water, 249 miles of cables, and four 750-ton chillers at its disposal, making it one of the world's fastest computers.*

are the backbone of the computer. Believe it or not, the "blue" in Blue Mountain does not refer to these blue SGI/Cray servers. It is a technical term for shared memory. In a shared memory multiprocessing machine, chips access the same reserve of memory—as opposed to distributed-memory machines where each chip has its own memory. Thanks to this shared processing, Blue Mountain has a peak speed of 3.1 teraflops, or 3.1 trillion calculations per second. The long-term goal is a 100-teraflop machine by 2004. "This is industrial-strength computing," says Mercer-Smith.

I edge through this maze of Lego-looking blocks to the belly of the beast. The backs of the servers are naked cavities exposing not a mess of wires but banks of vertically inserted CPU trays. The hum gets louder. It's like a bizarre carnival attraction.

A rush of air, alternating warm and cool, blows past me. Blue Mountain, like a PC, is air cooled. It runs between 70 and 85 degrees—a supercomputer of the past, the Cray 2, baked so hot it had to be immersed in fluorocarbon liquid to prevent its processors from melting. But not Blue Mountain. Surrounding the room are 16 industrial-sized air conditioners—frigid to the touch. Air blowing from vents keeps all these processors running at a constant temperature. On a recessed floor beneath the machine snake 227 miles of orange, spaghetti-like fiber-optic cable. Twenty-two miles of interconnecting cables link the servers' processors and switches.

The computer is so immense that its power, cooling, and storage systems are on separate floors. On the bottom floor, two 10-megawatt power stations provide the juice. One of these is enough to supply power to a town roughly the size of Los Alamos (population 9,000). The computer requires only 2.6 megawatts of electricity, but 10 megawatts are always online.

Keeping 48 servers cool demands four 750-ton industrial chillers; together they could cool the entire Empire State Building. Outside, four chilling towers—steam whisking off—remove heat from the supercomputer's air-conditioning system and dissipate it into the air.

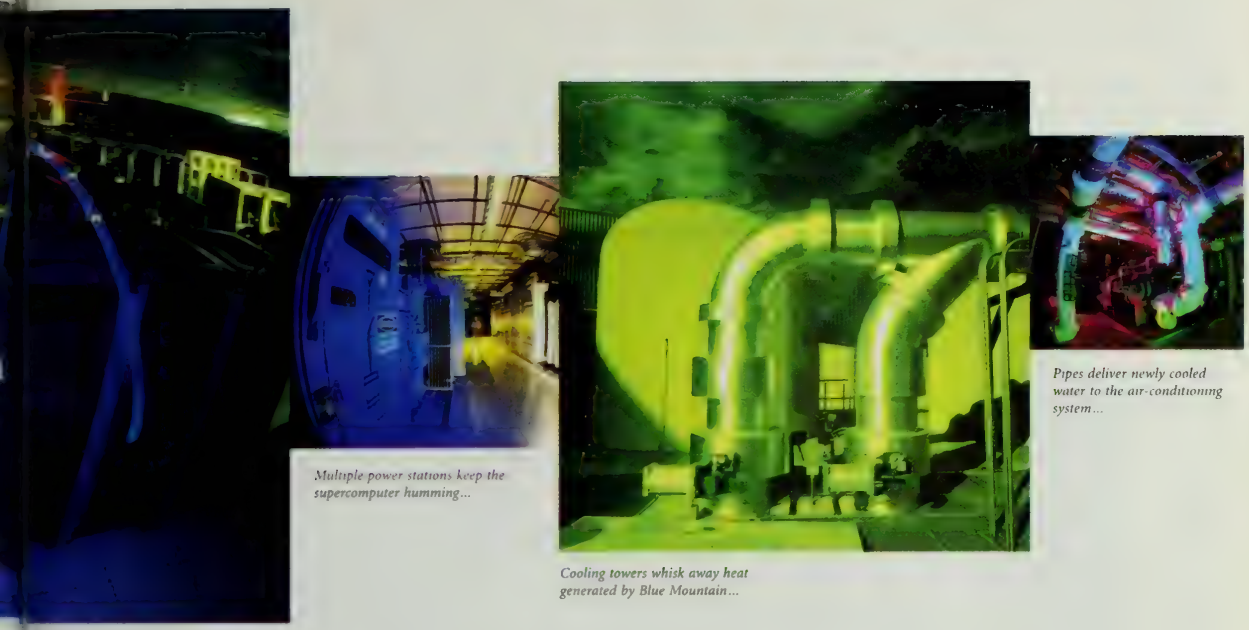
The second floor of this building is partially under construction to make room for 96 SGI disk storage cabinets with 76 terabytes of storage, making it one of the largest "disk farms" ever created. These disks will handle Blue Mountain's 1.5 billion bytes of local memory—940 times more memory than the average 16-megabyte PC.

STANDING IN THE MUSHROOM CLOUD

THE AWESOME POWER OF the world's fastest computer will enable physicists to get inside their problems. Literally. Scientists are connected to Blue Mountain via desktop machines, which they use to input complex algorithms and weapons data. Currently, they can only visualize the data on computer monitors. But by the middle of this year, using floor-to-ceiling-sized screens, they'll be able to step inside this information. They will, virtually, stand in the center of a mushroom cloud. With three-dimensional technology, scientists will have the capacity to simulate a bomb test whose results they can then verify with 50 years of data accumulated during weapons tests conducted before the ban.

It is not an exact science, however. Little is known about what happens when the nuclear component, plutonium, ages. Weapons designers here have a saying, "Computers always lie." The real question is: By how much? With the test ban treaty, that question now carries a greater sense of urgency than ever before.

And much of the responsibility falls to Blue Mountain, which is the key to providing the Los Alamos team with a 99.9% assurance that the country's nuclear stockpile is in working order. A culmination of a 50-year shift from test-based to computati-



Multiple power stations keep the supercomputer humming...

Cooling towers whisk away heat generated by Blue Mountain...

Pipes deliver newly cooled water to the air-conditioning system...

ased stockpile stewardship, Blue Mountain is part of the Accel-rated Strategic Computing Initiative (ASCI), a partnership among hree labs: Los Alamos; Lawrence Livermore National Laboratory n Livermore, California; and Sandia National Laboratories in ivermore and Albuquerque. All the labs are a strange hybrid of niversity, corporate, and government entities, operated by the niversity of California and Lockheed Martin for the Depart-nent of Energy.

As it turns out, Blue Mountain is just the latest installment n Los Alamos' historic computer arsenal. An embryonic form of ne computer was developed at Los Alamos in 1944 to run eapons experiments for the Manhattan Project, the top-secret overnment plan to develop the first atomic bomb. Wives of hysicists toiled for days typing nuclear implosion simulations nto desktop calculators and punch-card accounting machines. oday, it would take one of those scientists' wives 3 million years o do what Blue Mountain can accomplish in one second.

As the need for an atomic bomb became more apparent, sci-ntists turned for help to the University of Pennsylvania and NIAC, the first large-scale electronic computer. In July 1945, ased on ENIAC's calculations, the world's first atomic test, called rinity, occurred in southern New Mexico. In the decades that llowed, Los Alamos scientists continued their work on super-omputers, and Los Alamos became the incubator and repository or many major computing feats, including: MANIAC, the Cray , and Thinking Machines's CM-5...and now Blue Mountain.

BEYOND THE BOMB

THEY'RE NOT JUST MODELING bombs at Los Alamos. About three-uarters of the lab's 7,000 employees are working on nonnuclear rojects. However, a handful of these projects follow the same hread Blue Mountain is undertaking: simulating or predicting extremely complex problems, ranging from mapping the human genome to drug development to helping city governments manage growth.

Take Andy White's project. He's the director of Los Alamos' Delphi project, and he believes there is a connection between wildfires and terrorism. He's not crazy. It seems that the same flow and turbulence dynamics models used to predict the wind and gases in a wildfire can be applied to the spread of an airborne biological toxin. The same atomic-scale rendering of a metal may be used to map the spread of an epidemic in the earth's population. "We're building common application tools for wildfire and influenza that will allow us, over the next five years, to really predict the future," says White. "We're trying to provide information and assessments to policy and decision makers." His team is searching for that link using another supercomputer, the 1-teraflop SGI computer called Nirvana Blue.

The lab's project on automobile traffic, TRANSIMS (Transportation Analysis and Simulation System), has a similar connection. Chris Barrett has been working on the project for five years. It has helped cities such as Dallas and Portland, Oregon, manage traffic congestion and pollution. The goal of TRANSIMS is to enable city planners to make better-informed decisions about their development and transportation systems. "Transport is not just a physical problem of reducing traffic," says Barrett. "It affects business opportunities in the transport system: the construction of a city, the ability of a city to float a municipal bond, the ability to attract companies, and the ability of developers to make money."

TRANSIMS has another application as well. Transportation grids, Barrett points out, are similar to networks being developed for the Internet. "Internet-based systems of this kind," he says, "are being built now by companies such as

Healtheon. They're dealing with large-scale distributed calculations that are simulation-like in character."

It is not just cities and government agencies that are benefiting. Corporate America is outsourcing some of its trickiest problems to Los Alamos. Most U.S. companies are not hotbeds of supercomputing prowess and can't handle this work in-house. So many depend on supercomputing power just as much as the national laboratories do.

More than 40 corporations have partnered with the Virtual Laboratory Testbed, a facility founded in 1992 that allows U.S.-owned corporations to apply the lab's high-performance computers to real-world business challenges. Oil giant Chevron, for example, has used Los Alamos' resources to help improve its oil exploration and extraction technologies. And the giants of the pharmaceutical world have shaved time and money off their drug discovery processes.

General Motors has designed better motors and safer cars by performing crash and engine simulations. And Gillette has collaborated with Los Alamos to develop shaving products. "Industry will go through enormous efforts to create a high-quality product at a lower cost," says Richard Kendall, director of the Virtual Laboratory Testbed.

Richard Kendall, director of Los Alamos' Virtual Laboratory Testbed.

WEAPONS AND WITCHES

For all of Blue Mountain's power, its time at the top w be short. Researchers who use supercomputers are engaged their own arms race. Even though they're partners in Bl Mountain, scientists at Lawrence Livermore are trying to be their colleagues at Los Alamos. An IBM-made computer call Blue Pacific will soon replace Blue Mountain at the front of t pack. When Blue Pacific's installation at t California lab is complete, its peak speed w be 3.9 teraflops.

But at press time, Blue Mountain is st king of the hill. As it sits in the high, co desert of New Mexico, it has no knowled of its power. It is just a machine crunchi staggering amounts of data, never thinki about the consequences of its work; tho are beyond its calculation. But, thankful I know that such consequences are n beyond the understanding of Dr. Jas Merc Smith and many others. "We've created t most horrible weapons imaginable, and t result is unprecedented peace," he says. "Weapons designe play the societal role of witches in fairy tales—we sca people into behaving. That's not a pleasant role, but i very important."

The Top 25 Supercomputing Sites

The top 25 supercomputing sites ranked by theoretical peak speed as of November 5, 1998. In order: location, computer, purpose, speed, number of processors, manufacturer.

1 Los Alamos National Laboratory *(Los Alamos, U.S.)* ASCI Blue Mountain, energy research, nuclear weapons modeling, 3.07 Tflops, 6,144, SGI

2 Sandia National Laboratories *(Albuquerque, U.S.)* ASCI Red, research, 1.83 Tflops, 9,152, Intel

3 Government *(U.S.)* T3E1200, classified, 1.30 Tflops, 1,084, SGI

4 IBM *(Poughkeepsie, U.S.)* SP Silver, energy research, 1.29 Tflops, 1,952, IBM

5 Government *(U.S.)* T3E900, classified, 1.19 Tflops, 1,324, SGI

6 Lawrence Livermore National Lab *(Livermore, U.S.)* ASCI Blue Pacific CTR SP Silver, energy research, nuclear weapons modeling, 892 Gflops 1,344, IBM

7 The Meteorological Office *(Bracknell, U.K.)* T3E900, weather research, 788 Gflops, 876, SGI

8 Manchester Materials Science Centre *(Manchester, U.K.)* T3E1200, academic, 734 Gflops, 612, SGI

9 NASA/Goddard Space Flight Center *(Greenbelt, U.S.)* T3E, weather research, 650 Gflops, 1,084, SGI

10 Silicon Graphics *(Chippewa Falls, U.S.)* T3E1200, vendor development, 648 Gflops, 540, SGI

11 Naval Oceanographic Office *(Bay Saint Louis, U.S.)* T3E900, weather research, 630 Gflops, 700, SGI

12 NERSC/Lawrence Berkeley Nat'l Lab *(Berkeley, U.S.)* T3E900, 3D scientific visualization, 623 Gflops, 692, SGI

13 Center for Computational Physics *(Tsukuba, Japan)* CP-PACS/2048, academic, 614 Gflops, 2,048, Hitachi

14 Deutscher Wetterdienst *(Offenbach, Germany)* T3E1200, weather research, 558 Gflops, 484, SGI

15 The Max Planck Society *(Garching, Germany)* T3E, materials science, plasma research, 487 Gflops, 812, SGI

16 University of Stuttgart *(Germany)* T3E900, fluid dynamics, chemistry, 486 Gflops, 540, SGI

17 Pittsburgh Supercomputing Center *(U.S.)* T3E900, protein folding, black hole simulations, 486 Gflops, 540, SGI

18 Lawrence Livermore Nat'l Lab *(Livermore, U.S.)* ASCI Blue Pacific TR SP Silver, energy research, nuclear weapons modeling 446 Gflops, 672, IBM

19 IBM *(Poughkeepsie, U.S.)* SP PC604, vendor development, 330 Gflops, 512, IBM

20 Forschungszentrum Juelich *(Juelich, Germany)* T3E, physics research, 324 Gflops, 540, SGI

21 Silicon Graphics *(Eagan, U.S.)* T3E, vendor development, 324 Gflops, 540, SGI

22 Government *(U.S.)* T3E1200, classified, 322 Gflops, 268, SGI

23 U.S. Army HPC Research Center *(Minneapolis, U.S.)* T3E1200, parachute modeling, weapons blast analysis 322 Gflops, 268, SGI

24 University of Edinburgh *(U.K.)* T3E900, academic, 313 Gflops, 348, SGI

25 University of Tokyo *(Tokyo, Japan)* SR2201/1024, academic, 307 Gflops, 1,024, Hitachi

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LUSTING AFTER Rusty Iron

FOR MOST MAINFRAME COLLECTORS, THE MORE OBSOLETE THE BETTER

BY KIP CROSBY

In October 1995, a large, colorfully painted moving van pulled into a corporate parking lot near San Jose, California. The members of an informal group of supercomputer collectors milled about waiting for the cargo doors to open.

Inside the trailer was a mainframe—an SDS 930 on permanent loan from a government agency. This computer was significant to the collectors because of its captivating design, elegant construction, pristine condition, and most of all because—as far as we knew—it was the last one left of the 168 that had ever been built. Its 14 racks and console weighed roughly 5½ tons, so we were grateful for the professional moving crew. In a perfect world, it might always be thus. But in the world at hand, collecting mainframes is an arduous job...generally done with rented trucks, borrowed labor, and scrounged space. Under duress, a large garage will serve—if you don't mind dispossessing cars.

I'm not talking about collecting little computers. Certainly, collecting desktops and minitowers can lead to problems if done enthusiastically, but you can start almost by accident: Merely buy a succession of personal computers and never throw them away. By comparison, collecting mainframes is done with utmost deliberation, a

Supercomputer Connoisseur *Paul Pierce has been collecting hardware since the 1970s. He owns 75 tons of equipment, which create either 9 or 10 systems, depending on how they are divided up. He works for Intel Research in Hillsboro, Oregon.*

COLLECTORS maniacal sense of purpose, a tendency toward insomnia, and a real love of second-rate fast food. Then all you need is a warehouse borrowed from an indulgent relative and a map marked with locations of cheap gas stations.

Mainframes are seductive partly because collecting them tests the bounds of possibility. For example, even though an entire mainframe probably weighs several tons, it's usually modular. So you can lift any one of the modules with two... maybe three... okay, four people. If it turns out you need a crane, don't forget to reserve it several days in advance because they can be hard to get on short notice. Also, be sure your crane operator knows how to lift stuff without tilting it; hardware of this order does not survive being dropped.

Paying Tribute *Nathan Myhrvold, chief technology officer for Microsoft, stores his collection of supercomputers in a warehouse.*

Once you settle the question of lifting and shifting the bits, then you'll need to turn your attention to storage space. Look for a facility with a leak-free roof, a ground-level main floor, adequate climate control, and good security. Then shake yourself hard, stop dreaming, and take what you can get: a single intermodal container in a parking lot somewhere that will actually hold an entire good-sized mainframe if jammed together tightly. If the roof leaks, you can cover each module with a really big plastic trash bag. Forget about standard storage lockers — few of them are big enough — and, in computer-collecting hot spots like Silicon Valley, you will pay nearly the per-square-foot rental rate of a livable apartment.

Eventually you may think about powering up the beast. Keep thinking! Remember, you've got this animal because someone in government or private industry was tired of paying for its air-conditioning. Also remember that, during its useful life, it lived in a very large insulated room with a massively reinforced false floor, and you do not have one of those. (You do? Please call me — collect.) If you're still determined to go ahead and fire up the behemoth, figure out its cooling requirements first — they're somewhere, hopefully, in one of the 56 manuals you got, and not in one of the 11 you didn't. Then determine its choice of power, which is obviously not household current — 220 if you're lucky, 440 if you're not, and in extreme cases, something even weirder. Cable it together, assuming you inherited all proper cables, and power it up slowly with a nice big Variac g erator. Don't try this on a rainy day. If something is bro and you can proceed far enough to figure out what it is, im diately turn to the Web or USENET in search of one of those or three surviving people on Earth who ever built, installed administered one of these silly machines...

You get the picture. On the scale of museum-grade nuisan mainframes rank somewhere in the middle. They're defini harder to collect than cars because they don't move under th own power. Also, a classic car parke your driveway is perfectly standard, a mainframe parked in your drivewa grounds for divorce. On the other ha mainframes are easier to collect than tage airplanes since they can be mo a small piece at a time, don't drink pr fuel, and don't need to be stored n runways. You can also operate a ma frame without a pilot's license.

Okay, so why do it? Some pe want the first — or last — compu they helped design. Some want the they spent 10 years managing, day day out. Some pay tribute to the ge of core memory, the hard disk, multiprocessing, or some other concept that sprang from white-hot overtime in a nearly f gotten lab. And a few hardy souls in cold climates, I swear, w exotic ways to heat their houses.

Still, the urge to save mainframes ultimately has its root the juggernaut of historical tendency. Mainframe to mini deskside to desktop, to laptop to notebook, to handheld to g At the moment the computer becomes universal, it will ne disappear. Then the few mainframes saved from scrappers stand as massive and self-sufficient as sculpture, evoking d of craft and engineering, glowing filament and arctic air, circ that can be traced and deciphered. Like the great iron brid and the piston-engined warbirds, they will have survived bey their time yet be instantly knowable. And then they will say the PalmPilots in our pockets, "From me you came."

Kip Crosby is the coauthor of The Windows 98 Bible *and has bee card-carrying member of the Computer History Association of Califo since 1993. Crosby also wrote the* Iron Age *timeline in this issue (p. 43).*

SHRINKAGE

The supercomputing business has not been kind. Below we've listed the companies that have come and mostly gone. The death date indicates the year the company went bankrupt, was acquired, or closed its supercomputing division.

COMPANY	BIRTH	DEATH
Remington Rand	1950	1955
Sperry-Rand	1955	1986
Control Data	1957	1989
Digital Equipment	1957	1998
Burroughs	1961	1986
Honeywell	1969	1987
Floating Point Systems	1970	1991
Cray Research	1972	1996
BBN Advanced Computers	1972	1991
Denelcor	1974	1985
Fujitsu	1977	•
CHoPP Computer	1981	1994
Silicon Graphics	1982	•
Convex Computer	1982	1994
Alliant Computer Systems	1982	1992
Hitachi	1982	•
NEC	1983	•
Thinking Machines	1983	1994
nCube	1983	•
ETA Systems	1983	1989
Intel	1984	1996
Multiflow Computer	1984	1990
Cydrome	1984	1988
Parsytec	1985	•
Meiko	1985	1997
Evans & Sutherland	1986	1990
Unisys	1986	1997
Kendall Square Research	1986	1995
Tera Computer	1986	•
Supercomputer Systems	1988	1993
MasPar Computer	1988	1996
Cray Computer	1989	1995
HAL Computer Systems	1990	1993
IBM	1993	•

Source: Alfred Brenner, Institute for Defense Analyses

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Where They're Going

BY DANNY HILLIS

THERE ONCE WAS A TIME when supercomputers were made of different stuff than ordinary machines. The original Cray 1 was handcrafted from exotic chips mounted on copper-plated, liquid-cooled circuit boards. The Cray 2 looked even stranger. It bubbled in a bath of fluorocarbon fluid—cooled by artificial blood.

Parallel computing changed all that. Now the fastest machines in the world are made of the same components as PCs and workstations. Supercomputers just use more of them. The truth is, given the current trends in technology, the distinction between supercomputers and other computers is beginning to blur.

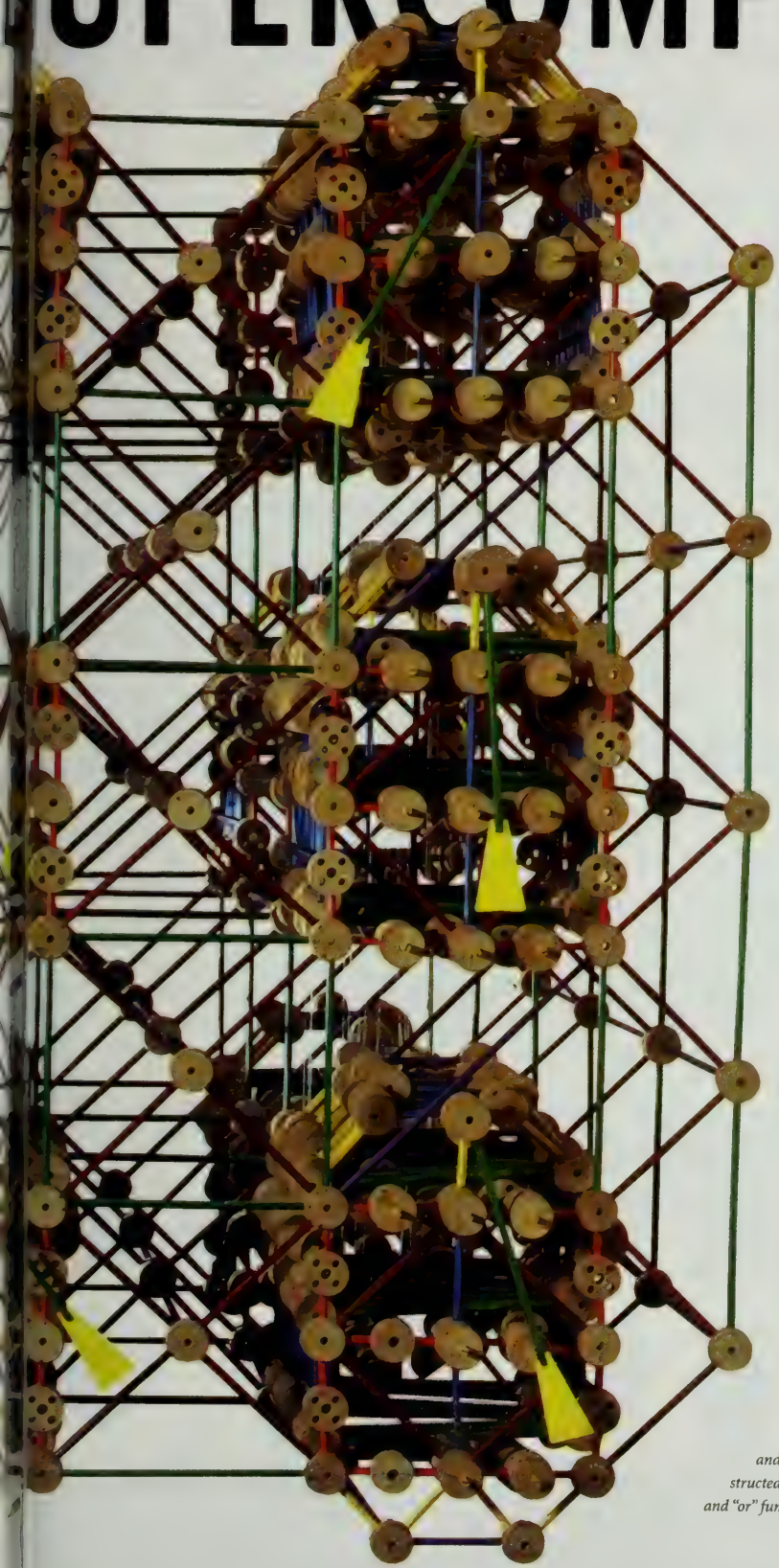
For the near term, at least, it is pretty clear that this trend will continue. But what technologies on the horizon have the potential to upset the applecart and set off the next revolution in supercomputing?

At least three: optical computers, biocomputers, and quantum computers. They are all long shots, but because they are potentially revolutionary, they are worth investigating.

Optical computing is probably the least radical of the three new technologies. It has been in use in limited form for decades, mostly in military signal processing.

In optical computing, a light would carry information as well as, if not better than, electricity. For one thing, light beams are superior to electricity for sending information from one ▶ 62

UPERCOMPUTERS



How They'll Work

BY DANNY HILLIS

WHEN I FIRST VISITED the MIT Artificial Intelligence Laboratory as a freshman in 1974, the field of artifical intelligence was in a state of explosive growth. The first programs that could follow simple instructions written in plain English were being developed, and a computer that understood human speech seemed just around the corner. Computers were even passing calculus exams and solving simple analogy problems taken from IQ tests. Could general-purpose machine intelligence be far off?

But by the time I joined the laboratory as a graduate student a few years later, creating true artificial intelligence was looking more difficult. The simple demonstrations had turned out to be just that. Lots of new principles and powerful methods had been invented, but applying them to larger, more complicated problems didn't seem to work.

Part of the problem lay with the speed limitations of computers. The speed of a computer is generally governed by the amount of time it takes to move data in and out of memory. In the late 1970s, that process was still measured in microseconds. So it was frustrating, for example, to try to get a machine to recognize ▶ 62

Tinkertoy Computer, *above, was built by Danny Hillis and friends in 1978 to play tic-tac-toe. The machine was constructed using tens of thousands of pieces and operated on "and" and "or" functions. It now resides in the Computer Museum in Boston.*

WHERE THEY'RE GOING

◀60 place to another, which is why telephone companies use fiber-optic cable to communicate over long distances. The reason that light is so useful for communication is that, unlike electricity, it does not interact much with its surroundings. Two beams of light can cross each other without anyone or anything even noticing.

Unfortunately, it is this very independence that makes it difficult to make an all-optical computer, since computing requires interaction. True optical computing will necessitate the development of the optical equivalent of a transistor, so that one light beam can be used to switch another. Such devices exist, but making one with the right performance characteristics will require a breakthrough in the field of materials science.

Large-scale biocomputing is further from being realized than optical computing, but the potential is greater. Imagine a supercomputer the size of a grapefruit that is capable of real-time image processing, speech recognition, and logical inference. Such computers exist: They are called human brains. With steady progress in biotechnology, we are beginning to understand and manipulate the genetic machinery that manufactures brains.

If progress continues at the current rate, it is conceivable that in a decade or two supercomputers will be grown in vats. This may sound like science fiction, but there already are experiments leading in this direction. For example, "biochips" have been produced that feature neurons grown in patterns atop a sheet of silicon.

In other laboratories, researchers have encoded strands of DNA with data that can perform computations right inside a flask. These biocomputing experiments are still far from having a practical application, but that's what we said about the integrated circuit in 1958.

Quantum mechanics is the third technology with the potential to create a revolution in supercomputing. This is even more nascent than optical or biological computing but is potentially even more revolutionary. Because quantum computers take advantage of the counterintuitive rules of quantum mechanics, they are potentially much faster than their electronic counterparts. In fact, they may be infinitely faster. Literally.

Coming up with the technology that will supersede electronic computers is not going to be easy. After all, parallel computers using standard microprocessor technology have been improving by an order of magnitude every few years. So any technology that aims to replace this will have to be pretty hot.

But progress in the field of computing has been rapid and full of surprises. I am writing this article on a $1,500 portable laptop that is about three times faster than the $10 million Cray 1 supercomputer I first saw in 1974. Predicting the future is always dangerous, but the predictions that look most foolish in retrospect are the ones that claim, "It can't be done." ■

"If progress continues at the current rate, it is conceivable that in a decade or two supercomputers will be grown in vats."

—Danny Hillis

HOW THEY'LL WORK

◀61 a pile of obj when recognizing a single object required hours of computing time.

The computers of that era were slow because they w sequential — they could do only one thing at a time. A comp must look at a picture pixel by pixel. By contrast, a living br can perceive an entire picture instantly and, at the same time, simultaneously match what it sees to every image it knows. For reason, a human being is much faster than a computer at rec nizing objects, even though the neurons in the human vis system are much slower than the transistors in a computer. T difference in design inspired me, as it did m others, to look for ways of designing massively p allel computers — computers containing mult processors that could perform millions of ope tions concurrently, just like the brain.

The crux of the problem facing us was how work would be divided among the processors first it seemed that the best way to divide computation was to give each processor a differ part of the program to execute. But this strat suffered from the same drawbacks as organizir large team of people to paint a fence by assign one person the job of opening the paint, anot the preparation of the surface, another the ap cation of the paint, and another the cleaning of brushes. Such a complex functional breakdo would require a high degree of coordination — after a certain point, adding more people woul speed up the task.

Another way to use a parallel computer wo be to have each processor perform similar work, on a different section of the data. This so-called d parallel decomposition of the task would be like p ting a fence painted by assigning each worker a s arate section of the fence. Not all problems break as easily as painting a fence, but where large computations w concerned, this method proved to work surprisingly well — it is the way that most parallel applications work.

In data parallel decomposition, a search problem, like pl ing chess, can be broken down by having each proces simultaneously search different lines of play. The degree to wh the process can be sped up is almost proportional to the nu ber of processors — so the more of them the better. Obviou a little time must be spent dividing the initial problem amo the processors and gluing the subsequent answers together but if the problem is sufficiently large, those matters beco proportionally very small, and the computation can be p formed very efficiently, even when the work is divided amo tens of thousands of processors.

A typical example of the kind of computation well sui to a parallel computer is a simulation of the atmosphe which is useful in predicting the weather. In such a model, nu bers represent a three-dimensional cube of air in the atm sphere. These numbers specify average temperature, pressu wind velocity, and humidity. Multiply this by several million s cubes and the result is a kind of three-dimensional ▶

Suddenly the words "eat our dust" come to mind.

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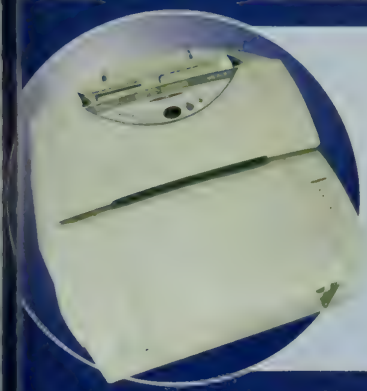

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HOW THEY'LL WORK

◂62 moving picture inside the computer—a picture that behaves according to physical laws.

However, even such a high-resolution, three-dimensional image will never be perfect over a long period of time—say, several weeks—because the initial state of the atmosphere cannot be measured with exact precision. Like the game of roulette, weather systems are chaotic, so a small change in initial conditions will produce a significant change in the outcome. Nevertheless, for predicting the weather a few days ahead, we can be remarkably precise.

That's the good news. The only problems we *don't* know how to solve efficiently on a parallel computer are those in which the problem grows over time. An example is predicting the future positions of the planets. (Ironically, this is the very problem for which many of our mathematical tools of computation were originally invented.)

The paths of the planets are the consequence of well-defined rules of momentum and gravitational interactions between the nine planets and the sun. The only way we know how to calculate the positions of the planets a million years in the future is to calculate their positions at each intermediate time between now and then. This is a problem that can only be tackled sequentially. You can't ask one of the processors to go ahead and compute the positions of the planets 500,000 years hence, without computing their positions just before then, and just before then, and so on. If there is a trick to solving this pr lem concurrently, I am not aware of it. On the other hand far as I know, no one has proved that this orbit proble inherently sequential. It remains an open question.

Highly parallel computers are now fairly common, and si they are built of the same parts as personal computers, they likely to become less expensive and more common with ti The most interesting parallel computer today is the one t is emerging almost by accident from the networking of sequ tial machines—the Internet.

As the information available on the Internet becomes ric and the interaction among the connected computers becor more complex, I expect that the Internet will even begin exhibit *emergent behavior* going beyond any that has b explicitly programmed into the system.

In fact, the Internet is already beginning to show sign such emergent behavior, but so far most of it is pretty sim (and irksome): plagues of computer viruses, unpredicted p terns of message routing, etc. But as computers on the netw begin to exchange interacting programs instead of just electr mail, I suspect the Internet will start to behave less like a r work and more like a parallel computer. And when that h pens, the meaning of "supercomputer" will change again.

Danny Hillis is credited with having pioneered the concept of massively parallel puters. He cofounded Thinking Machines. "How They Work" is an extract fro book The Pattern on the Stone: The Simple Ideas That Make Computers Work

INSTRUCTIONS BY THE MILLIONS

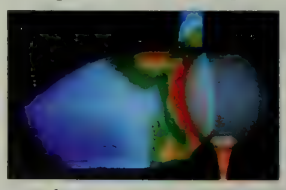
IT IS A GREAT PROGRAM. A vast program. It is the world's most venerable computer program, the granddaddy of all granddaddies—1.5 million lines of Fortran and Cobol code. And it has been Dick MacNeal's life for more than three decades.

This behemoth of a program is called NASTRAN. You may never have heard of it, but if you've ever flown in a plane, driven a car, or even laced up a pair of Nikes, you've tested Dick MacNeal's creation.

NASTRAN, a finite element analysis software program, simulates how an object will survive real-world conditions like heat, vibration, stress, and electromagnetic fields and forces. The results are interpreted by engineers and have been used to improve the design of innumerable products, from disk drives to the space shuttle.

NASTRAN didn't set out to become such a massive program. Its origins were comparatively humble. In the early 1960s, NASA, deciding it was paying too much money to too many contractors, solicited bids for the creation of a general-purpose, finite-element code it could use for its space program. MacNeal, then a 43-year-old consultant, sent in the winning proposal. Asking NASA for $1 million, a rather modest amount at that time for a government project, he put forth a plan to develop the code, agreeing to have it ready within two years.

NASA accepted the bid, but the project cost twice as much as anticipated and took four years to complete. When it was finished, NASTRAN was considered one of the most mathematically robust codes for design analysis in its field.



A Perfect Swing *A new golf club is tested using computer modeling. The colored area is where stress occurs.*

Writing all that code was no cakewalk for the engineers. MacNeal didn't even own a computer at the time. Luckily, NASA supplied the hardware—more accurately, they stipulated that all the code be written on NASA's computers, whenever lab time was available. "That turned out to be a hell of a condition," MacNeal recalls.

Free lab time at each of the eight NASA computer labs around the country was usually only available late at night. MacNeal and his team could also get time on Christmas and the Fourth of July.

MacNeal found a way to get even. "We had a policy that everyone traveled first-class," he boasts.

When the project ended in 1970, so too did the income for MacNeal and his business partner, Robert Schwendler. NASA sold NASTRAN for a mere $1,500, which included the source code. The pair knew that to keep the MacNeal-Schwendler Corporation (MSC) going, they would have to develop a proprietary version of the software.

In 1982, after years of contractual complications with NASA, MSC finally cleared its software by making a $125,000 payment to NASA.

Today, MSC, a 700-employee, publicly traded company with 1998 revenues of $135 million, is still producing code. NASTRAN can perform trillions of floating-point calculations and read and write terabytes of data in a single analysis.

At the very heart of this enormous program are the first lines of code Dick MacNeal wrote some 30 years ago. "Nothing ever obsoleted our software," he says. "It's amazing." —*David Raymond*

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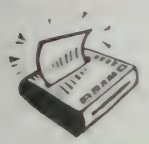

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CORPORATE AMERICA IS TURNING TO SU

BY SCOTT LAJOIE

Size MATTERS AGAIN

KARIN, THE SOFT-SPOKEN DIRECTOR of the San Diego Supercomputer Center (SDSC), is popular among his peers. But as he loped around the exhibit floor at the supercomputing show last November in Orlando, Florida, his mind was not entirely on the colleagues who greeted him. He was hyperfocused on one of the many initiatives he had left on his plate back at his lab in La Jolla, California.

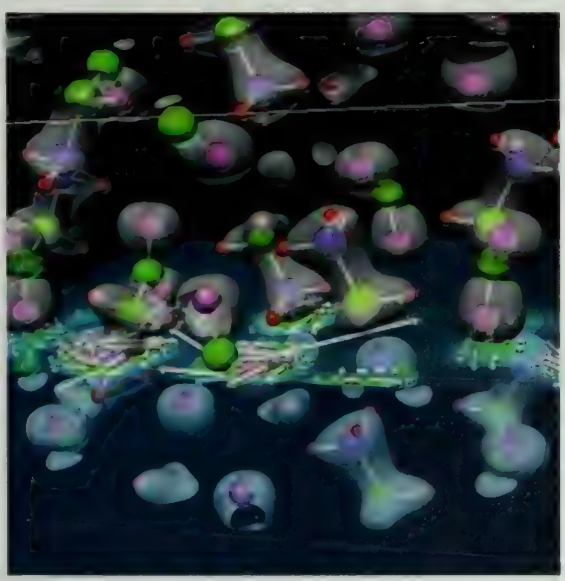
And no wonder. One recent proposal resulted in an innovative computational process that models fluid flow through a porous material. A second proposal, which Karin and his team are working on now, involves modeling molecules to better understand skin friction.

Academic research projects? Top-secret government work? Nope. SDSC's client is Procter & Gamble, and his lab's intricate computations are aimed at making a better diaper and improving the feel of skin lotions.

Welcome to the new age of supercomputing. Once confined to the grand challenges of government and academic research, the $3 billion supercomputing industry is gaining momentum in corporate R&D. All that computing power sunk into Pampers research may seem trivial, but consider this: The diaper industry alone accounts for nearly $3 billion in domestic sales, and P&G desperately wants to regain the lead in this highly contested market.

"When companies take the leap into high-performance computing, they never turn back," asserts industry analyst Debra Goldfarb of International Data Corporation (IDC). "Once a mere tool, computational modeling is now becoming absolutely essential in some industries."

Examples of this shift are cropping up everywhere. Motorola is using machines at the University of Illinois through the National Computational Science Alliance to map the cell phone system of metropolitan areas such as Los Angeles. The company is modeling 800 power adjustments per second across grid cells of merely 50 meters. These computations, which used to take months to perform on smaller workstations, can now be crunched before the technicians break for lunch. At United Airlines, an IBM RS/6000 SP computes better pricing structures. The airline expects its $20 million investment in hardware, software, and support to reap a whopping $100 million in additional revenue next year, according to Ajay Singh, United's general manager of R&D.



Vision Quest *Supercomputers help scientists visualize amino acids (above) and oil and water mixing (left). Corporations use similar techniques to solve molecular modeling and fluid dynamics problems of their own.*

At Exxon, supercomputers have decreased oil exploration costs by 66%. Engineers use three-dimensional models of oil reservoirs and surrounding rock structures to determine the best places to drill. DaimlerChrysler, meanwhile, conducts crash simulation, structural analysis, airflow modeling, and other tests on supercomputers in its design shops and engineering facilities. Each virtual crash of a new vehicle prototype saves the company as much as $275,000. At tiny BioNumerik Pharmaceuticals, a 6-year-old, 28-employee outfit in San Antonio, Texas, supercomputers model individual molecules in the company's cancer therapy drugs. BioNumerik, which

MPUTERS FOR A NEW COMPETITIVE EDGE

Gaining Insight *Supercomputers model (below, left to right) drug compounds, oil contaminant flow, elements of nuclear fusion, neutron tracks through a uranium sphere, and oil flux. Tokamak Gyrofluid Turbulence visualization (facing page) is part of a collaborative effort between Los Alamos and Lawrence Berkeley National Laboratories and General Atomics to model the activity in a magnetic fusion reactor.*

competes against such behemoths as Merck and Pfizer, does a minute amount of physical experimentation, thus reducing expenditures on drug development by a factor of 10. And General Atomics, a privately held research lab, is simulating the core of a magnetic fusion reactor in an effort to develop the ultimate alternative energy source.

It's stories like these that have led IDC's Goldfarb to predict a healthy 12% accumulated growth rate in the use of high-performance computing through 2002. Still, that's hardly a boom, given the apparently fantastic cost benefits of these technologies. Industry is wary of supercomputers even with their clear benefits. Why?

Ask American Express. In 1992 and 1994, the credit card giant invested millions in what was then the darling of supercomputers, Thinking Machines's CM-5. Unfortunately, like numerous other ventures in the supercomputing field, Thinking Machines tanked, a victim of market shrinkage and technological change. As a result, American Express was left out in the cold, and a chill spread over the industry.

Corporate America has again started warming up to high-performance technologies, but a new set of problems is causing the industry some growing pains. Sure, the multiple teraflops (trillions of calculations per second) achieved by the government's Accelerated Strategic Computing Initiative (known as ASCI; see "Blue Mountain," page 50) and the awarding of the Nobel Prize in chemistry to John A. Pople, who first initiated computational chemistry, last year were notable milestones. But many industry insiders saw those events as being as much marketing hype as any real measure of the practicality of Big Iron in the corporate world.

For example, Bran Ferren, executive vice president of creative technology at Walt Disney Imagineering, stunned the crowd of thousands at the Orlando show by saying he didn't care much about the hollow benchmark achievements of ASCI. He's not alone. Says Mike Bernhardt, a former Intel marketing executive who now runs a Portland, Oregon-based PR agency representing high-performance computing: "Being the fas and the biggest doesn't cut it anymore. People w to know exactly what the cutting edge can do their businesses."

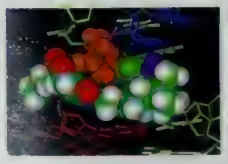
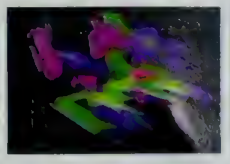
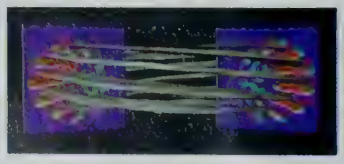
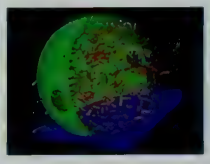
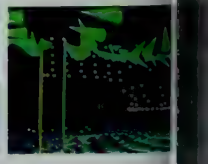
Indeed, the market for such machines changed forever. "Exotic" and "revolutic ary"—terms that once described the C and Thinking Machines supercomputer yore—are out, replaced by a demand "off-the-shelf" and "commodity-bas products. This shift is certainly r ognized by the industry's forem purveyors. IBM bases its RS/6 SP line of massively parallel s tems on the same servers t already chug away in ma corporate wiring clos The same IBM archit ture that is model the nuclear stockp at the governme Lawrence Liv more Natio Laboratory Northe California is also tackling United Airlines's pricing challenges

Silicon Graphics also leverages its products over a wider ra of customers, discontinuing some of the old Cray lines (it bou Cray Research in 1996) in favor of the scalable, more versa Origin2000 system.

The largest segment in the overall high-performance co puting market, in terms of shipments, is technical servers midrange systems, where Hewlett-Packard, Digital Equipm Corporation (now part of Compaq), and Sun Microsystems h an increasing presence. So exciting has this segment become even companies like Dell Computer are now flirting with idea of entering the fray.

Big business is finding still other ways to embrace superco puting. One Bristol-Myers Squibb executive expresses conc about the future of present vendors and the lack of competit in the U.S. supercomputing market. That is why he is having company set up a "Beowulf system"—a sort of do-it-your budget supercomputer.

But even with less expensive systems, corporations will c tinue to invest millions in supercomputers in their endless q for savings and the ultimate competitive advantage.

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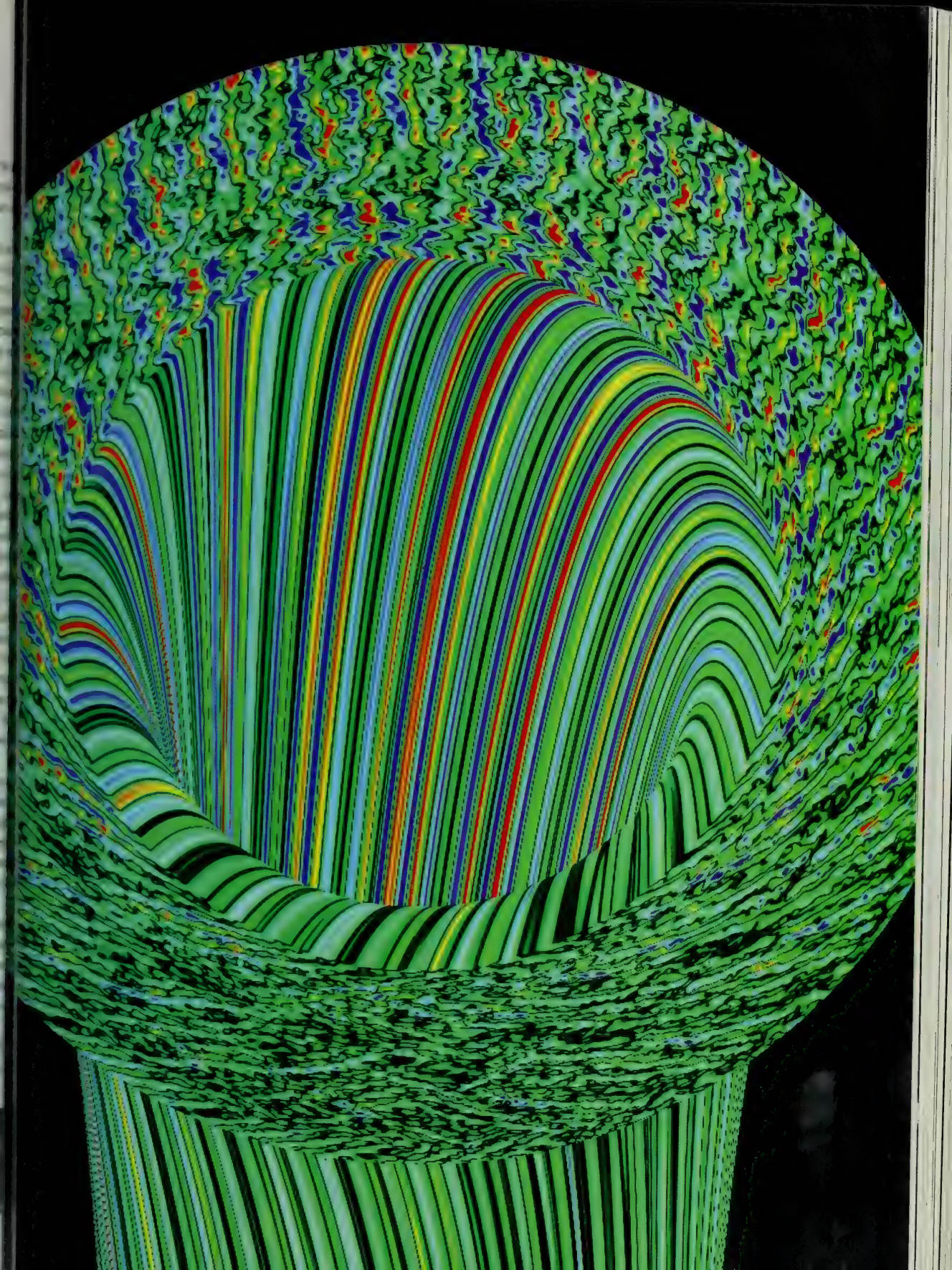

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BY GARRY KASPARO

Techmate

A 13-TIME WORLD CHESS CHAMPION SINKS INTO A DEEP BLUE FUNK

PLE THE WORLD OVER are worried about the future of the man race. Why? Because I lost one chess match in the spring 1997 to IBM's supercomputer, Deep Blue. It is worth thinking out: If we can be defeated at chess, one of the superior games the mind, then what are our chances of withstanding competition and pressure from computers in less creative areas?

as aware of the importce of this challenge, but y after my first match h Deep Blue, which I n, in 1996.

The pressure from the bal audience to see the ults of this unique eximent, a classic match vits pitting man against chine, was tremendous. e general public consered me a long shot inst the brute force of computer's calculaths. On the other hand, ss specialists didn't nk that a "stupid" mahe had a chance against world champion. Both views proved exaggerated.

The truth is that chess is an infinite game—no computing ver in the universe can exhaust all of its opportunities. Even achine capable of calculating 200 million positions a second eventually encounter consequences of isions beyond the reach of its calculations. l here is the Achilles heel of every chessving program, a virtual stumbling block computer scientists: No matter what kind positional priorities you install in the nputer, its output is never going to be ible. It will never be capable of making oice based on thinking outside the fixed er of its program.

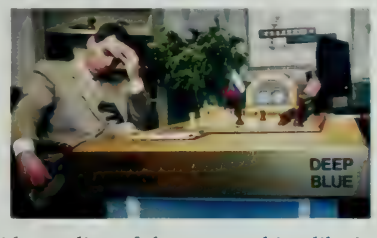
So far, so good. But to take advantage his weakness, human players must avoid any slips of the typically made in normal chess competition. In a game inst a computer of immense power, such as Deep Blue, the erience is like a nice walk in a minefield—one wrong step you are out of business! Still, it can be done.

Bear in mind that even a simple move requires significant ics. It's next to impossible to prevent your opponent, human or silicon, from using these tactics. For example, the latest development in "opening theory" tremendously helps professional chess teams design positions that allow a computer to exercise its advantage, or to force its opponents out of the main theoretical routes.

In my last match against Deep Blue, I decided to opt for unusual openings, which IBM would not have prepared for, hoping to compensate for my inferior position with superior intuition. I tried to present myself to the computer as a "random player" with extremely odd playing characteristics. It is always helpful to drag your opponent into the type of positions he or she dislikes—but when playing against a computer it is crucial. The key is to exploit the gap between the computer's strength in handling complexity and the human player's gift for inventing a long-term strategy.

This plan worked perfectly well in Game 1. After outplaying itself in a slow opening, the machine made simple mistakes: It happily took an exchange and recognized the danger only after it was too late. But then something strange happened. Typically, the computer has a very strict set of priorities, the first of which is material gains (taking pieces). But in Game 2, the computer didn't show much appetite for material gains, preferring instead to limit my active positions. This very human approach was unprecedented for any computer program.

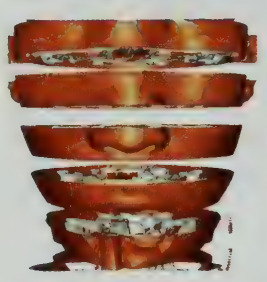
Russian Roulette *Garry Kasparov won the first game of the infamous rematch against Deep Blue by playing a strategy of unusual openings.*

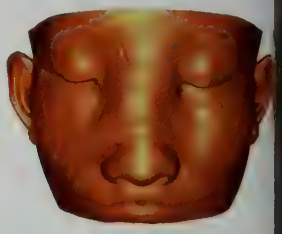


At the time, the reader may remember, I suggested that I felt a consciousness, or something like it, within Deep Blue. Today, I have a different view. Many people don't realize that during the match the computer was behind a curtain—and was rebooted several times after crashing [Editor's note: IBM denies that Deep Blue crashed and says the machine only performed "a programmed halt"]. This calls into question the sporting value of the competition. If I "crashed" or became sick during a match, I would ▶ 76

THE Eternal Now

BY JARON LANIER





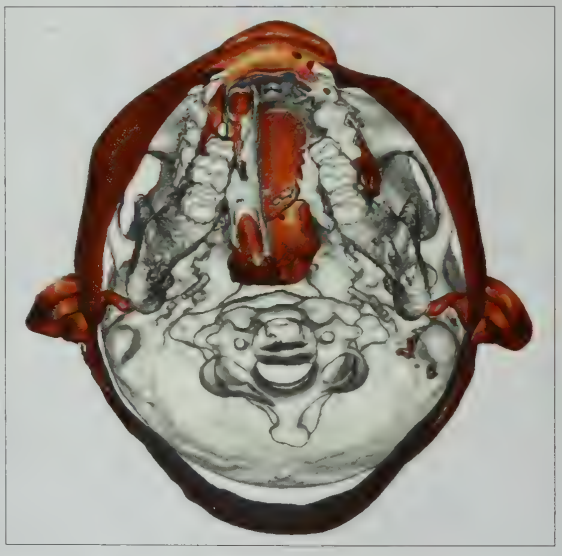
COMPUTERS ARE IMPROVING FASTER than any technology people have experienced before, so the obvious question is: Where is all this leading? It is not enough for us, as some thinkers are doing, to throw up our hands and announce that computers are already out of control. That's just a way of avoiding responsibility.

Lately, we've been asking some momentous questions about computers. Are they on the way to becoming a new life-form? Are they a successor species to people? Will people merge with them into something entirely new?

What is unsettling is that, given how fast computers are improving, some of these predictions might be tested while many of us are still alive.

Right now, two fast-changing technologies are already challenging what it means to be a person. Biotechnology offers the potential for reproductive techniques and genetic manipulations that will force us to redraw the circle around what is human. Information technology does the same thing through artificial intelligence. The center of the circle that defines a person is a dot called consciousness, and as murky as that subject is, we are fast approaching some crucial conclusions about it.

So far, one idea has received more avid support than any other. This is the notion that computers are becoming more and more "alive" and capable of judgment. It has become a cliché of technology reporting and a standby of computer industry public relations. It is a myth that depends upon support from, of all people, intellectuals.



Slice of Life *Scientific visualization software created these images using large medical data sets and multiple processors. Opposite page: a simulation displaying the area around the eyes and nose.*

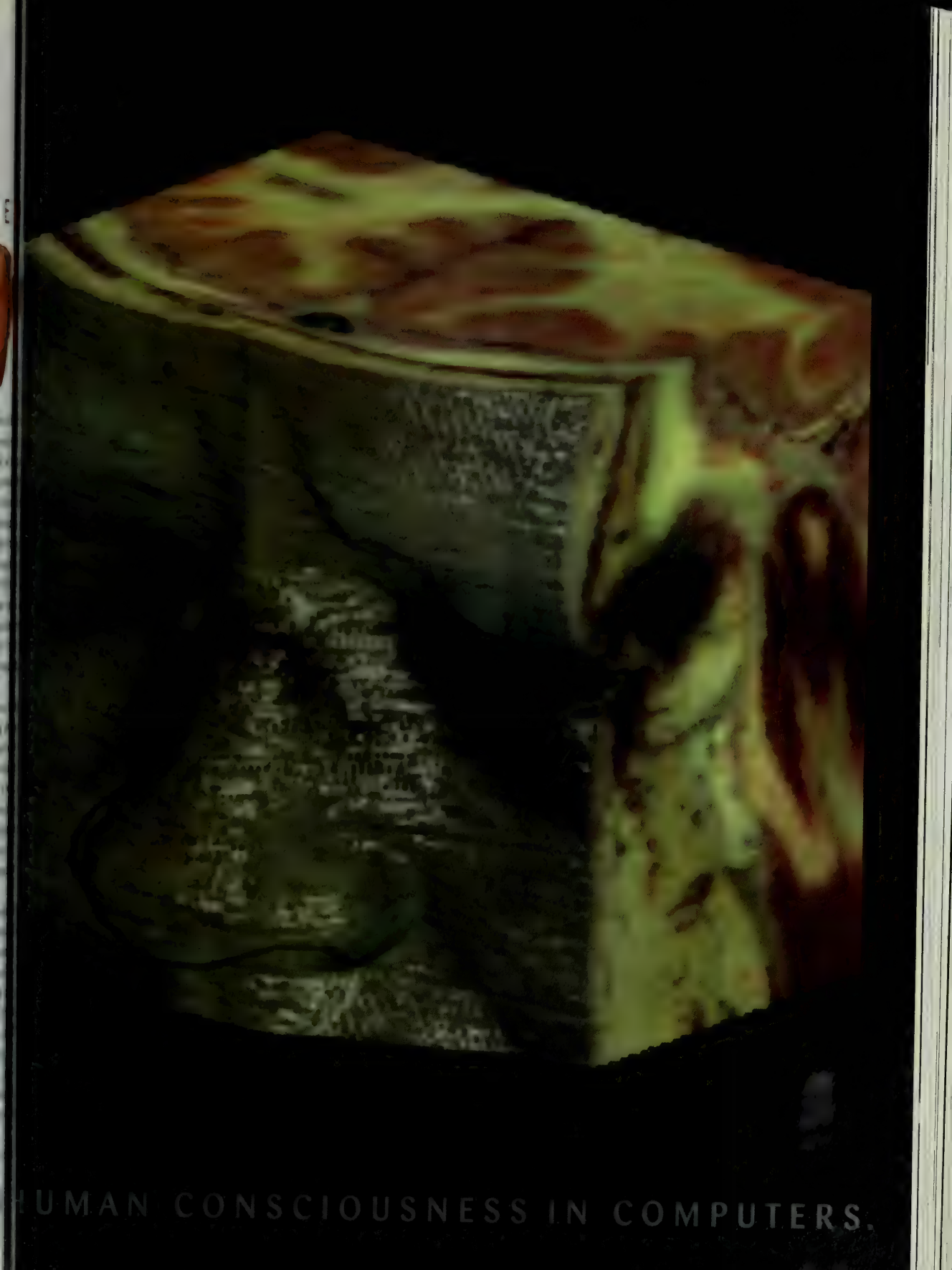
A small but robust cadre of intellectual shock artists th days is paid to assert that people aren't real. Every year c sees more books, mislabeled as popular science, aimed at f thering the claim that the reader is an illusion: *The Astonish Hypothesis; Consciousness Explained; The User Illusion; How Mind Works.* On and on, the formula repeats itself. An arroga overreaching title is essential, as is an overview of recent br research to create an atmosph of scientific authority. But the ence is peripheral to the bo that the author has attaine superior vantage point fr which to decimate the read tender sense of self.

At first it might appear t these authors are talking ab people, not computers, but w they really are doing is talk about all of reality as if it w only information processi That, in turn, puts the supe tively fast computer of the n too-distant future in a godl position.

Mainstream computer scie is comfortable with the noti that computers are becom "intelligent." The origin of t idea can be found in the ce brated thought experim known as the Turing Test, named after Alan Turing, one of inventors of the modern computer. According to Turing, computer and a human are concealed behind screens, an human judge who interacts with both is fooled into thinking machine is a human, then the computer can be said to poss an intellect equivalent to a human being's.

At the heart of this test is the concept that if an entity is m

INFORMATION PROCESSING WILL NEVER



UMAN CONSCIOUSNESS IN COMPUTERS.

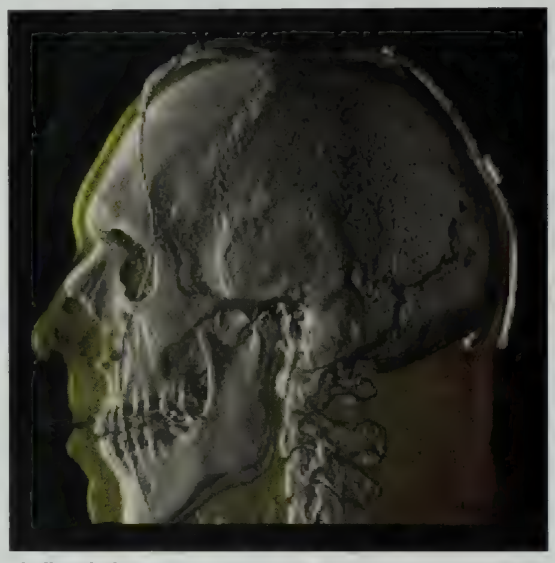
THE ETERNAL NOW

of chips instead of biological cells but can act the same way as a person, consciousness may not really matter. Many thoughtful computer scientists, influenced by Turing, believe this is so. If the Turing Test is right, it would seem unfair, even "racist" in a way, to think of a computer as a mere tool for humans.

But in practice, the Turing Test is dangerously flawed because it is impossible to distinguish whether the computer is getting more humanlike or the human is getting more computerlike. People are vulnerable, unfortunately, to making themselves stupid in order to make computers appear to be smarter.

In the real world, the Turing Test is mundanely played out in miniature every day. For example, many people will change their financial behavior in subtle ways to appear favorably to credit card and bank computer programs—even on occasion borrowing when they don't need to in order to make the right "impression" on their bank.

The Turing Test has a comparable, if different, distorting effect on intellectuals. It helps anticonsciousness authors claim that personal experiences do not define the center of a person. Thinkers throughout history, from Zen poets to existentialists, have suggested that an individual's everyday experience is an illusion, but the anticonsciousness authors go further: They want to convince the reader that experience itself is an illusion.



Skull and Skin *A Cray T3E, with 272 processors, generated this image of a human male skeleton transposed over fleshy tissue.*

Our inability to demonstrate our inner experience is what makes the consciousness-free point of view so compelling. It is wicked fun, apparently, to upset soft, fuzzy, consciousness-bearing people because they can't easily respond. Moreover, if we doubt the consciousness of a humanized (Turing Test-passing) computer, we can, and must, face the terror of doubting the legitimacy of every consciousness we presume to contact, except our own. We are back with Descartes in the steam bath. Leaving behind God and souls, the new test of faith becomes the existence of other people, even in everyday life. (The existence of one's own consciousness remains the sole thing that need not rest on faith—but what a lonely, solipsistic position to be in.)

But we don't have to play the game of the anticonsciousness crowd. Instead, we can ask questions that take us down a different line of reasoning. First: What would the universe be like if there were no consciousness? One answer, which I do not accept, is that the universe would instantly vanish if consciousness were removed. Another is that it would be about the same, except people would act a little more rigidly. A third possibility is that the universe would remain in an undetermined state without consciousness to cause quantum "collapses."

I propose the following answer: Without consciousness, t universe would be exactly the same, in terms of what its par cles would be doing. A camera placed in a consciousness-fi universe would record exactly the same scene. The same ph tons would travel the same courses through the lens. What wou be different is that there would be no basis for recognizing gr objects. The particles of a piece of wood would be in just t same locations at the same moment, but the notion that the c lection of particles is also a piece of wood would not be put fo ward. There would be no minds, words, or meaning in such universe—they are extraneo human interpretations. And th suggests a question that antico sciousness smart alecks should made to answer: Where do obje come from?

Of all the objects we would unable to refer to if consciousn did not exist, the most compelli I believe, is the concept of time the idea of the *present mome* That's the second question: Wh does the *now* come from? Ev if it were possible to subscribe the fuzzy notion that consciou ness "emerges" from certain kin of adjacencies of particles, t present moment remains clea dependent on the spooky, dual tic kind of subjective consciou ness we all sense is really there

In fact, consciousness is a se sible proposition only in the context of time. Certainly co sciousness would be a pointless exercise if the next moment we never a surprise. But the existence of the present moment h been taken for granted. It's true that a lot of attention has be given to its imperfect nature. From Edmund Husserl's explic tion to contemporary cognitive science experiments and rel tivistic theory, the present moment has been shown to be tattered, faulty entity. But it is still there. And the fact that perceive it at all demands an accounting.

Instead of focusing on the simplicity of the present mome philosophical inquiries into the relationship between co sciousness and time have tended to center on free will. Indee it might at first seem that free will and consciousness mu sink or swim together. Both are embraced by "folk wisdom" b have been forced to withstand sustained assault by a great ma mainstream scientists and philosophers in the 20th century. one of these twin concepts is shown to be an illusion, the oth might be expected to be equally vulnerable. But it turns out th just the opposite is true: If free will is taken to be an illusio then consciousness must fill a daunting and heroic epistem logical role.

If the universe is rigorously deterministic, and free w debunked, the only feature left to define the present moment consciousness. If it were not for conscious experience, the would be no way to distinguish the present moment from oth

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THE ETERNAL NOW

moments. Unless, that is, the present moment can be shown to be "doing something" distinguishable on its own, which would mean that there is something nondeterministic about the way the universe moves from one moment to the next. The universe itself would have to gain something very much like free will to fill the role played by consciousness in identifying the present moment. Either way, something is going on beyond the boundaries of empiricism.

It is easy to demonstrate that consciousness is localized in space, specifically in portions of the brain. But consciousness is even more strikingly placed in time. We seem to experience the present, remember the past, and anticipate the future.

This is extremely important. Neither the brain nor any other thing in the universe possesses an objective trait by which one can distinguish the present moment. Right here... now... is discernible from other moments only by someone who is stuck in time by being conscious.

What sort of thing would consciousness have to be to distinguish the present moment? In a deterministic universe, it would be something quite different from mere synapses shooting sparks in the brain, for those also are simply events in the deterministic flow. Thus they cannot mark the present moment as being different and separate from some other moment. Instead, a strategy of dualism must be invoked to account for the ability of anyone to speak of the present moment in a deterministic universe.

Sure, the present moment is not a precise point but a messy approximation, fraught with compromise and illusion. And indeed, people have a rather poor sense of the absolute passage of time. The neural events concerned with how we perceive the present moment are distributed in different parts of the brain, creating delays in the way our minds coordinate the information needed to tell time with total exactitude. But even if the present moment could be known with precision by a single mind, there would be no way in a relativistic universe for other minds to single out the same moment. Relativity does not allow for an absolute clock—yet we are all sharing the moment.

We are getting into complicated material here. The critical point is, however, that while consciousness cannot distinguish the present moment with consistency or precision, there is no other candidate in a deterministic universe that can distinguish it at all. No matter how accurate a timepiece is, including a computer's internal clock, it can't tell the present moment from another moment. That task falls to the conscious, responsible observer—to us. And that is what makes us conscious—and human. ■

> **"What sort of thing would consciousness have to be to distinguish the present moment?"** —*Jaron Lanier*

Jaron Lanier is a computer scientist, composer, visual artist, and author. He coined the term "virtual reality" and was a pioneer in scientific, engineering, and commercial aspects of the field.

TECHMATE

◂71 forfeit the competition. Deep Blue was allowed to play Was there some funny business going on? We'll never know few months after the match, with both of us tied at 1-1, D Blue was retired. (Its chess software currently is displayed on computer trade-show circuit, and its hardware is still used number-crunching.) Thus, the only impartial witness has cea to exist, and IBM refuses to release printouts from the ma that show what computations the computer made prior to e move. Without that information, we will never know if this n famous battle between man and machine wasn't, in fact, li more than a corporate publicity stunt.

By no means are you reading the complaints of a sore lose the year and a half since the event has been long enough for to make my own quiet assessments. I must point out that I not have much experience in the art of losing, and it is not so thing I wish to master. For the weekend chess warrior, play a computer is easy. Just plug in the program Junior, Fritz, or tual Chess, and you will have a very worthy opponent and, ho fully, a very pleasant experience. Competing against Deep Blue not pleasant. My emotions were clear for everybody to see. D Blue was an invisible enigma—we could not even tell if it a good sport or a bad loser.

The basic difference between playing a human and play a supermatch against Deep Blue is the eerie and almost em sensation of not having a human sitting opposite you. W humans, you automatically know a lot about their national gender, mannerisms, and such minor things as a persistent co or bad breath. Years ago we had to endure chain-smokers w blew smoke our way. But Deep Blue wasn't obnoxious, it simply nothing at all, an empty chair—not an opponent something empty and relentless.

Nevertheless, I was keen to participate in an important sci tific and social experiment, and that was how the event was s to the world. The bottom line—man and machine struggli the chessboard—is far from over. Given proper, fair conditio the final outcome remains to be seen. And for a few more ye at least, I feel confident that I can offer my services to def the integrity of the human race.

Garry Kasparov started playing chess at the age of 5 and became an internati grand master at the age of 17. He has been the top-ranking professional chess pl since 1984.

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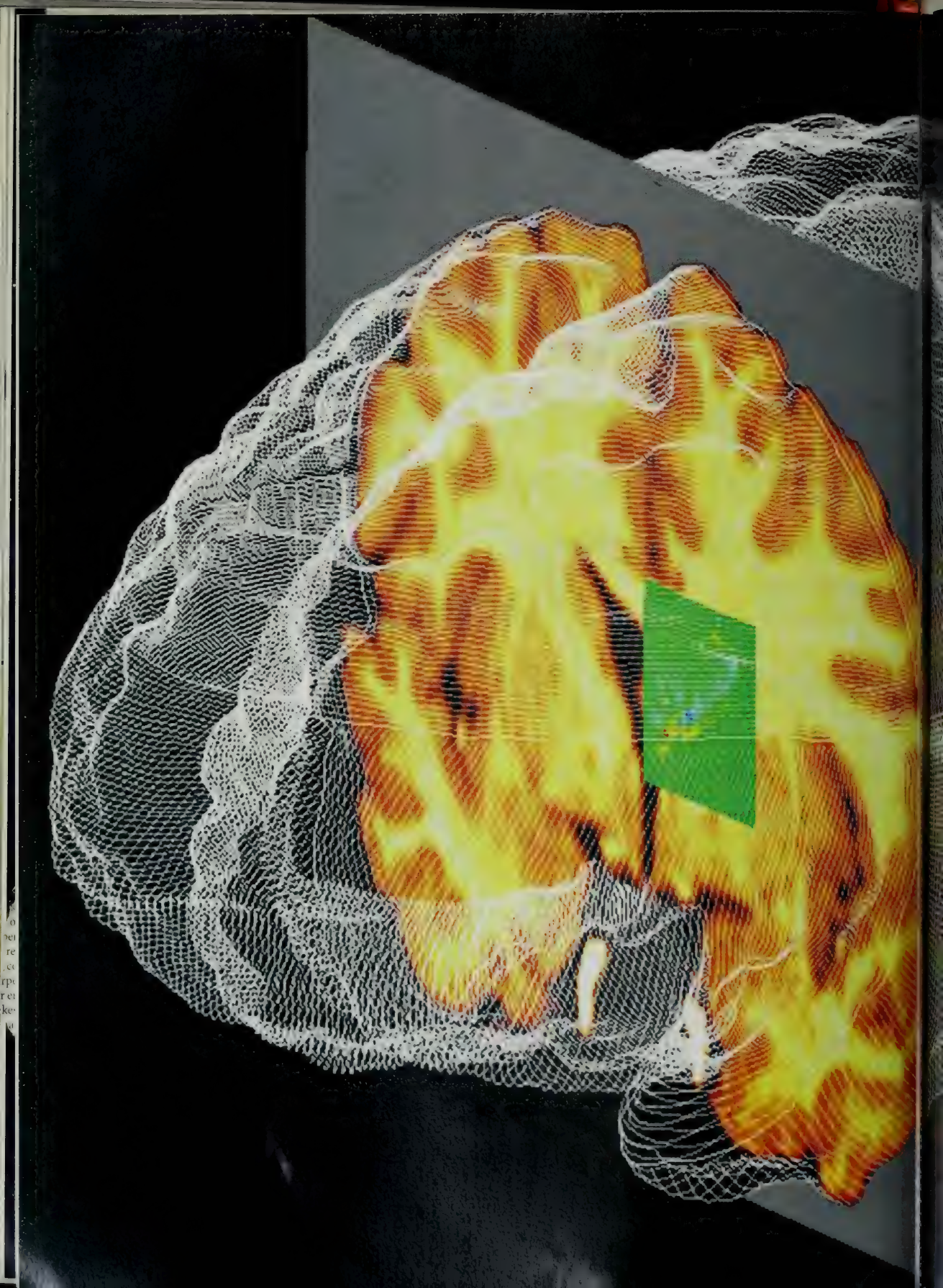
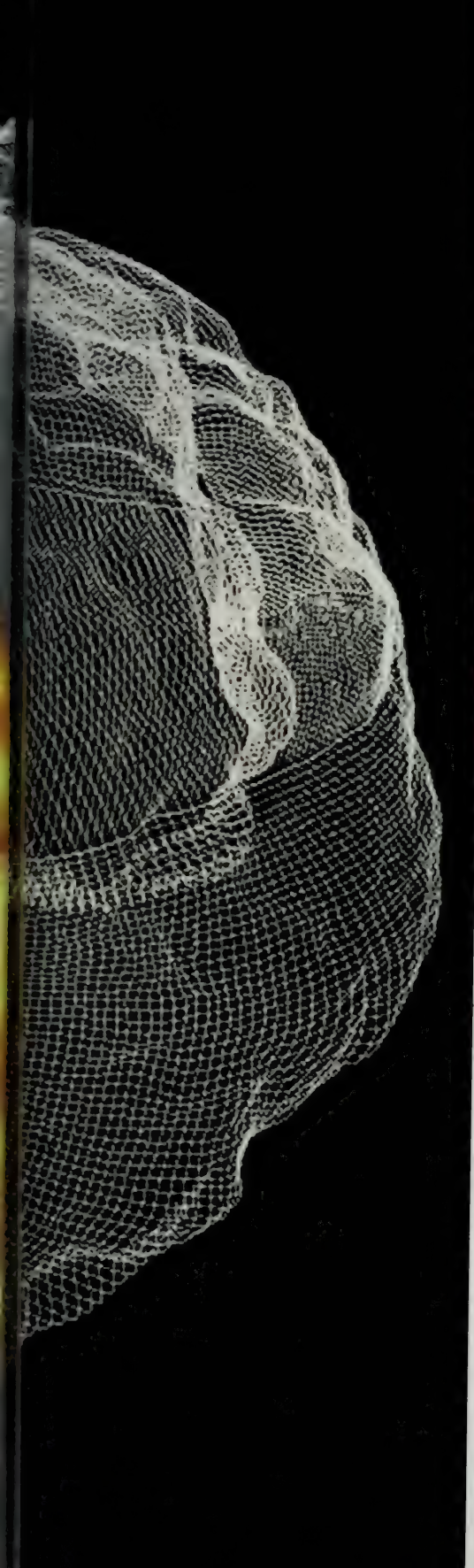




Visualization courtesy of Dr. Arthur W. Toga, UCLA School of Medicine. Data rendering, modeling, and visualization contributions by Paul Thompson and Andrea Lee. Courtesy of the National Partnership for Advanced Computational Infrastructure (NPACI).

Piece of Mind

DOWNLOADING BRAINS IN THE 21ST CENTURY

BY RAYMOND KURZWEIL

JUST AS TECHNOLOGY COMPANIES take apart and "reverse engineer" their rivals' products, we will, by the next century, reverse engineer the human brain.

The brain is, after all, the best example we have of an intelligent process. By probing the brain's circuits, we can copy and imitate a proven design, one that took its original designer several billion years to develop. (And it's not even copyrighted.)

We will start by freezing the brain of a recently deceased person and then examine one brain layer—one very thin slice—at a time. With suitably sensitive two-dimensional scanning equipment, we should be able to see every neuron and every connection represented in each synapse-thin layer. (Within a region, the brain's circuitry is highly repetitive, so only a small portion of a region needs to be fully scanned.)

When a layer has been examined and the requisite data stored, it can be scraped away to reveal the next slice. This information can in turn be stored and assembled into a giant three-dimensional model of the brain's wiring and neural topology.

Mapping the human brain, synapse by synapse, may seem like a daunting effort, but so did the Human Genome Project—an attempt to map every single human gene—when it was launched in 1990. The pace of the human genome scan was extremely slow in its early years but has accelerated with improved technology. The same will be true of the brain-mapping project as our methods for scanning and recording the 100 trillion neural connections begin to pick up speed.

Ultimately, using this brain scan as our template, we will be able to design neural nets that operate like the human brain. This is essentially what San Jose, California-based Synaptics, which develops neural networks, has done with a chip that mimics mammalian neural-image processing. There are also dozens of other contemporary projects designed to scan portions of the brain and apply the resulting insights to the design of intelligent systems.

Mapping Brain Growth *Rapid growth rates (red colors) and tissue loss (blue colors) are detected in the brain of a 7-year-old boy. Such imaging techniques are used to try to understand how the brain develops.*

KURZWEIL That's only the beginning. A more challenging scenario will be to scan someone's brain to download it onto a computer. By mapping the locations, interconnections, and contents of the somas, axons, dendrites, presynaptic vesicles, and other neural components, we will be able to re-create the human brain, including its memory, on a neural computer of sufficient capacity.

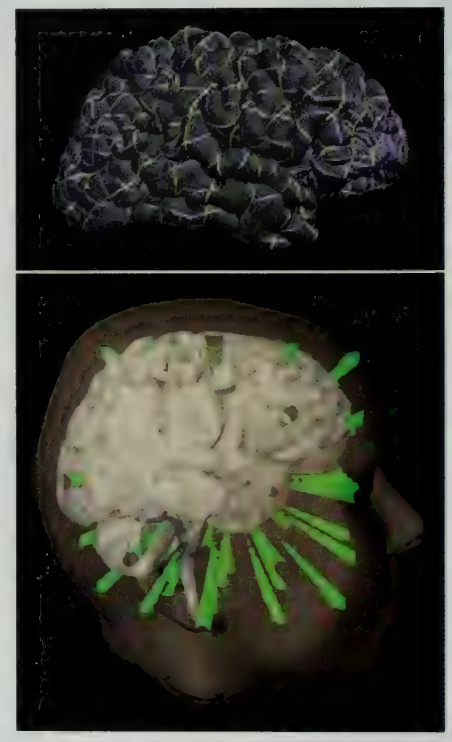
Obviously, this is harder than just scanning the brain to understand its processes. With scanning, we need only sample each region until we capture the salient algorithms. We can then combine those insights with the knowledge we already have. But in this second scenario, we will need to capture every little detail. We don't need to understand all of it; we need only to literally copy it, connection by connection, synapse by synapse, neurotransmitter by neurotransmitter. This will require us to understand *local* brain processes but not necessarily the brain's global organization, at least not in full. It is likely that by the time we can do this, we will understand much of it anyway.

How well will downloading the brain work? Like any new technology, it won't be perfect at first, and initial trials will be somewhat imprecise. But small imperfections won't necessarily be immediately noticeable because people's brains are always changing anyway. As our understanding of the mechanisms of the brain improves, as well as our ability to scan these features accurately and noninvasively, reinstalling a person's brain should alter a person's mind no more than it would normally change from day to day.

The newly emergent "person" will appear to have the same personality, history, and memory as the person originally scanned. Interacting with this "new person" will feel like interacting with the original. In fact, the new person will claim to be that same old person and will have a set of memories to back up the claim: growing up in Brooklyn, walking into a scanner here, and waking up in the machine there. He'll say, "Hey, this technology really works!"

There is, of course, the small matter of the new person's body. Will the reinstated personal mind file have the original human body, an upgraded body, a synthetic body, a nanoengineered body, or a virtual body in a virtual environment?

Another question is both subtle and profound. Is this the same consciousness as the person we just scanned? Some would argue that, yes, this new person is the same because his thought patterns are essentially identical. But, of course, if the original person is still around, he will convincingly claim that only he represents the continuity of his consciousness. He may not be satisfied to let his mental clone carry on in his stead.



Brain Drain *Top: Brain map coordinate system used by neuroscientists to compare brain image databases. Bottom: Electromagnetic and acoustic wave scattering and absorption in the human head.*

The new person will have no ambivalence as to whether not he committed "suicide" when he agreed to be transfer into a new computing machine, leaving his old, slow, carbo based body behind. He'll be glad that his old self took the plun otherwise, he wouldn't exist.

Is he — the newly installed mind — conscious? He certai will claim to be. And being a lot more capable than his old neu self, he'll be persuasive and effective in his argument. We'll beli him. He'll get mad if we don't.

In the second half of the 21st century, there will be a grow trend toward making this leap. Initia there will be partial porting — replac aging memory circuits and extend pattern recognition and reasoning c cuits through neural implants. Ultimat and well before the 21st century is ov people will port their entire mind file the new thinking technology.

Today, our mind's "software" is stu in a brain of a mere 100 trillion conn tions and synapses. But when the ha ware is trillions of times more capab there is no reason for our minds to s so small. They can and will grow.

Yes, we will be nostalgic for c humble carbon-based roots, just as were for vinyl records. But the leap port our minds to a more capable co puting medium will happen gradua but inexorably nonetheless.

Why will we do this? Because more powerful technology — and technologically more sophisticated c ilization — always wins. That is wh happened when the more technolo cally advanced Europeans encounte the indigenous peoples of the Am icas. This is happening today as mo advanced technology is the key det minant of economic and military pow Stopping computer technology, or any fruitful technology, wo mean repealing basic realities of economic competition, not mention our quest for knowledge. That's not going to ha pen. Furthermore, the road we're going down is a road pav with gold. It's full of benefits that we'll never be able to resi continued economic growth, better health, more intense co munication, more effective education, more engaging ent tainment, better sex... immortality.

As we port ourselves, we will vastly extend ourselves. In 20 $1,000 of computing power will have the computational cap ity of a trillion human brains. We might as well multiply t memory a trillionfold, greatly extend recognition and reas ing abilities, and plug ourselves into the pervasive wireless co munications network. While we're at it, we can add all hum knowledge as a readily accessible internal database.

In this way, death will disappear by the end of the 2 century. Until now, our mortality was tied to the longevity

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KURZWEIL our *hardware*. Yeats lamented our dependence on a physical self that was "but a paltry thing, a tattered coat upon a stick." But in 100 years, our identity will be based on our evolving mind file. We will be software, not hardware. Just as we don't throw our files away when we change personal computers, we won't throw our mind file away. We will merely port ourselves to the latest, ever more capable "personal" computer. Our immortality be a matter of making frequent backups. If we're careless ab this, we'll have to load an old backup copy and be doome repeat the recent past.

This piece is an excerpt from Ray Kurzweil's recently published The Age of Spi Machines: When Computers Exceed Human Intelligence. *His previous book,* Th of Intelligent Machines, *was named Most Outstanding Computer Science Book of*

Silicon Man Lives

JUST ASK PETER COCHRANE

ONE OF PETER COCHRANE'S favorite television characters is *Star Trek*'s Captain Jean-Luc Picard. In a favorite episode, Picard is turned into a menacing half-machine, half-man creature: a Borg. Cochrane—the head of research at British Telecom Laboratories (BT Labs), the British version of Bell Labs or Xerox PARC—is working to make that fantasy come true.

Cochrane and his R&D staff of 660 biologists, engineers, and physicists are working on the kinds of technologies that usually exist only in science fiction movies. Cochrane's team researches technologies as mundane as switching and networking and those as advanced as artificial life, virtual reality, and wearable computers.

It is not hard to see the appeal of such a future to Cochrane. The fast-talking, 52-year-old electrical engineer already zips from topic to topic like a multiplexing computer. In his recent book, *Tips for Time Travelers,* Cochrane describes the technology of the future as being an omnipresent part of our lives. Products will be smaller, more compact, almost invisible, some even becoming embedded in our bodies. In his view, people will one day embrace technology far more deeply than most of us can even imagine. For example, Cochrane believes that humanity's future, its *Übermensch,* will be a new bionic creature: CarboSilico Man.

Cochrane's interest was piqued six years ago by BT Labs' research into online surgeries. Cochrane, who joined British Telecom in 1973, had been part of a team developing optical systems technologies and artificial intelligence. From this experience Cochrane saw a logical connection between medicine and electrical engineering.

Today, artificial implants in human beings are commonplace. According to Cochrane, there have been more than 1 million pacemaker implants, 1,700 cochlea (inner ear) implants, and 16 artificial retina experiments. Microchip implants are increasingly being inserted into pets and livestock for identification. Chips are also being used to track criminals—the chips are set into the transponder bracelet or anklet worn while under house arrest.

For Cochrane this is only the beginning. He is eager to take the next step: universal silicon implants. Cochrane estimates that silicon implants will be common by 2010. Initially, he predicts, they will be used for medical purposes—helping people who are paralyzed or who suffer from neurological disorders, or even from more minor problems such as incontinence.

Bionic Believer
Cochrane predicts silicon implants will be common by 2010.

Scientists have already conducted some chip-embedding experiments. A 52-year-old stroke victim in Atlanta has a chip in his brain that allows direct wireless communication to his computer. The chip amplifies his brain signals, which are transmitted through an antenna to his computer. The Massachusetts Institute of Technology and the Massachusetts Eye and Ear Infirmary have been using rabbits to test silicon retinas that may someday cure blindness. And the National Institutes of Health implanted a chip into the visual cortex of the brain of a blind person, allowing the individual to see faint images.

Cochrane doesn't have a chip embedded in himself yet, although he'd really like one. He does have a chip in his signet ring, however, that includes such personal information as his medical records and bank account and passport numbers. One of his associates has had a chip embedded under his skin. It bears the same kind of information as the chip in Cochrane's ring, and its data can be accessed by radio.

"People get paranoid about being tracked, but the concern is wrongly placed," Cochrane says. "If I were mugged in San Francisco, there would be no way to access my medical history if I were unconscious."

Why the rush to embed these chips and incorporate them—literally—into themselves and others? Because, says Cochrane, the human brain is reaching its evolutionary peak. Computing power increases a thousandfold each decade. By comparison, human brains have remained largely unchanged for 50,000 years, consistently downloading about 20,000 terabytes of information in a lifetime.

The logical next step, he says, is to embed a chip in the brain to maximize its capabilities. In a 1995 paper, Cochrane dubbed this chip "Soul Catcher" and described its advantages: "Among the desirable features of a silicon extension—PC in your head—would be high-speed data processing and memory, no distortion or decay, but with a delete function."

The most prized aspect of this technology would be a kind of immortality. Cochrane dreams of the ability to access and even interact with, the greatest minds of our time. "People like Albert Einstein and Richard Feynman develop ideas and then they die," he says. "Their only echo is a book." But if a silicon chip were embedded in their brains, it could capture their thoughts and also be removed once they died. People would be able to ask questions of these great disembodied minds (their answers, of course, would be based on the information those individuals knew at the time of their death).

Imagine: A lifetime's worth of thought and wisdom will be only a keystroke away.

—Carol Pickering

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alla's Victory *After climbing the ladder of success in Silicon Valley, Bob Metcalfe can now choose where he wants to spend his time. That place is a 150-acre f near Camden, Maine. A founder of 3Com, Metcalfe doesn't think that his new location has changed his work habits: "I didn't retire — I am still in the rat race."*

THE TECHNOLOGY ARISTOCRACY

new class of people is emerging. They are rich, mobile, d unlike anything society has seen before. By Joel Kotkin

INVENTOR OF THE Ethernet is tooling nd in his aging Volvo through the un- ting hillsides outside Camden, Maine. countryside is postcard pretty — a ering harbor ringed by verdant woods. he middle of summer, and Bob Met- expresses some exasperation with rowds that flock to the brief New Eng-

land warmth: the day-trippers, second-home couples, and the aging "snowbirds" who return to Florida when the chill settles too deeply into their bones.

"Camden is deserted in the winter," Metcalfe sighs wistfully. "I love having no people here."

Yet Metcalfe, one of high technology's

ography by Robert Holmgren

Contemplative Man *The local coffee shop provides a place for a tech titan to slow down and read the* New York Times. *From his perch, Metcalfe is known to occasionally give low-tech business advice to area s*
Below left: Metcalfe's home office is in a strategic location on his farm — between the barn and the bedroon
Below right: Making the rounds in Camden includes visiting with tech-savvy friends along the way.

THE TECHNOLOGY ARISTOCRACY

leading thinkers and founder of 3Com, the second-largest networking company in the world, is not as antisocial as he sounds. "A term that doesn't apply to me is *reclusive millionaire*," he jokes. A full-time resident of Lincolnville (a small town about five miles outside of Camden), he can also be quite gregarious, holding an elaborate Renaissance festival on his lovely 150-acre farm and helping to organize a technology conference every fall in Camden itself.

What Metcalfe really seeks is the ability to control his life — enjoying company when he wants, or quiet solitude with his wife and two children. Such command choice constitutes the essence of belonging to a brand-new class of people: "itinerant rich" — as Metcalfe himself calls it. Because of technology, this new class can completely remove itself from society and live in places that resemble the paradise of Norse legend — lovely, isolated Valhalla, "vast and gold-bright."

Of course, affluent people have long dreamt about how to overcome the hassles of conventional existence and find a graceful, less harried way of life in the countryside. Even as millions of the poor and ambitious migrated to cities seeking their fortune, the affluent or powerful fled to countryside retreats. In the last centuries of the Roman Empire, when it was increasingly plagued by crime and decay, aristocrats tended to devote themselves primarily to their elaborate estates, where they could ponder deep philosophical questions, compose poetry, or simply debauch themselves far from the eyes of their peers.

Today, the rich are still trying to escape, but the difference now is that they no longer need to choose between career and living in paradise; they can have it both ways. People can trade commodities, bits, bytes, or software programs and yet wake up every day to greet the magnificence of an Atlantic sunrise or the towering spires of the Grand Tetons. This fundamental difference from the past could cause the rich to become even more removed from, and indifferent to, the plight of the lower classes, which in turn could have serious consequences for society as a whole.

FEW PEOPLE CAN CLAIM, as Metcalfe to have actually created the basis fo lifestyle — not to mention having the tune to fully exploit the power of his creation. While working at Xerox PAR Palo Alto, California, Metcalfe hel invent the intricate interconnectivity underpins his itinerant life. From farmhouse, armed with his Apple Po Book with a DSL modem running at kilobits per second, he uses his tech ogy to stay in touch continuously with world's dataflows.

Metcalfe and his wife, Robyn, h been coming to Camden since the n 1980s. As it did for his neighbor, for Apple Chairman John Sculley, the tow first offered only a welcome retreat f the hustle of Silicon Valley. But when M calfe chose to leave 3Com in 1990, sta in the valley made no sense. The cro ing, the snobbery of nerds turned mu millionaires, and the incessant hunge power and prestige offended a man w at heart, has remained a remarka straightforward product of a Baysh New York, working-class family.

But Metcalfe, who left 3Com at the der age of 44, also didn't want to go qu into the New England night. He did seek to become a mere country squir didn't retire — I am still in the rat ra probably spend more time doing w

now," he insists. He serves on several porate and nonprofit boards, includ his alma mater, MIT, and writes a reg column for *InfoWorld* magazine.

What has changed, Metcalfe points is *how* he works, as well as *where*. Whe was running 3Com, he would leave Woodside home, spend 40 minutes tling freeway traffic down to Santa C arrive at 8 and stay till 6. It was a gr

for the essentially inward-looking
calfe, those days were far too heavy on
naging people, holding meetings, and
ussing strategy.

"Now I don't have anything you would
a workday," Metcalfe says. "I work
n and where I want. Email helps. I can
e when I want, talk to people when I
t. I don't have to manage people. I can
n individual contributor." But perhaps
t important, Metcalfe and his family
also choose — and do so at least once
onth — to stay at the family home on

Beacon Street in Boston. Like others of his class, Metcalfe can afford to use the city, in this case Boston, as a kind of cultural ATM, a place where family members can get their hair cut, drink cappuccinos, go to a new movie, or buy clothes. The big city, not the old country estate, now plays the supporting role.

"This scenario is happening to everyone I know," he says.

THIS ODD MIXTURE OF HIGH TECHNOLOGY, money, and need for solitude has created a boom market in a veritable archipelago of Valhallas from the shores of Maine to the Rocky Mountains. Just a generation ago, such places as Aspen, Colorado, and Jackson Hole, Wyoming, were written off as all but useless in an industrial-age economy. But not anymore. Take the ski resort of Park City, Utah. Founded as a mining town in the 1880s during the Utah "silver rush," Park City had shrunk to a mere 500 souls by the 1950s; it was even listed as a ghost town in some travel guides. Ski runs and first-class powder revived the town in the 1960s and 1970s, but the economy was at the mercy of the ups and downs of the tourist business and real estate busts as recently as the early 1980s.

Now that's all changed, as mounting numbers of people make their permanent homes in the area, turning its old, faded

Victorian charm into the rustic elegance characteristic of the Valhallan archipelago. The full-time population of the greater Park City area, under 4,000 in 1980, has tripled to 12,000 today. The wealth of incoming residents has shifted the real estate market dramatically. In the mid-1980s, local realtor Ann MacQuoid recalls selling houses and condos for $250,000. Today those same properties command a $600,000 to $1 million price tag. In the first three months of 1998, in fact, 13 houses fetched prices of more than $2.5 million.

Blaise Labriola is one of the individuals responsible for the hike in real estate prices. Labriola, 44, sells his latest computer-generated projections about global risk to leading investment banks and corporations worldwide. After 15 years of slogging on Wall Street, Labriola decided to set up his own software firm, Theoretics, in 1994. With a staff of 10, he takes in daily data along fiber-optic lines from around

THE TECHNOLOGY ARISTOCRACY

the world, plugging in complex logarithms that ultimately find their way to the boardrooms of firms such as PepsiCo, Dresdner RCM Global, GMAC, Wachovia, and U.S. Bancorp. And he doesn't have to give up his view or the occasional midday ski run to do it.

Park City isn't the only real estate boom success story. Aspen, Colorado, with 6,000

residents, now boasts a median home price of $1.5 million, making it the most expensive city in America, according to *Worth* magazine. The median home price in Snowmass, just down the road from Aspen, stands at $960,000; its counterpart in the Jackson Hole area goes for $340,000.

Commercial real estate is booming,

too. With corporate demand, properties have more than doubled this decade in small towns such as Boulder, Colorado. Significant corporate empires are now operating there and in similar towns. Data Broadcasting, a $320 million firm that provides real-time market data to individual investors, operates from its corporate offices in Jackson Hole.

NOT ALL COMMUNITIES, of course, benefit from the rush to Valhalla. People settle in the Rockies, parts of the Southwest, or the Appalachian South, but few set up home in the old Dust Bowl communities of the Plains. Even the rural towns of Wyoming continue to stagnate or even shrink, despite the growth of Jackson Hole. The state ranks 50th in economic growth in spite of the creation of value-added jobs and technological industry.

Not all races of people benefit either,

notes William Frey, a demographer for University of Michigan and the Milken stitute. Valhallas from Maine to the Ro Mountains are the most white-domina parts of the country; 90% of the resid of Utah are Anglos, compared to 74% the country and barely 60% of Califo ans. Only 20,000 of the more than 1.2 lion Mainers surveyed by the Cen Bureau are minorities. "There are no bl people living here," observes Metcalf his Camden, Maine, home. "You see you literally do a double take."

But class more than race determi the hierarchy within the Valhallan ar pelago. "The upper-class dynamic i move to very nice places where they l the rural renaissance," notes demograp Frey. "The lower classes get to mov

the less appealing places." Middle-cl boomers go to places such as Santa F Los Alamos, New Mexico. Others sim wait till retirement and then find a tra park or small condo complex in less sp tacular locations such as St. George, Ut where the population has jumped fr 27,000 to 48,750 since 1990, or Appalachian range south of Washingt D.C., the Ozarks, or along the Flor coast. But at the top of the pyramid are Metcalfes of the world, or what one ac emic has called "sophisticated consum of place." They have the money to pick best spots and, because many are also m ters of new technology, they can ea transfer their jobs to new locales.

TODAY'S NEW ITINERANT RICH represe huge break with the very notions that h governed elites from the beginning recorded history. In a way unimagina

King of the Hill *When he isn't working at Theoretics, the software company he started in 1994, Blaise Labriola is kicking up powder in downtown Park City, Utah. After 15 years of slogging on Wall Street, he decided to set up his own software firm, which has a staff of 10 and a client list that includes PepsiCo and U.S. Bancorp. Unlike Wall Street, the end of the day involves a commute to the ski slopes — and down them.*

re, the new elite can operate largely out having to share space with the ses. Theirs is increasingly a self- ted universe, a protected preindustrial dise with the full benefits of postin- rial technology.

lore than a decade ago, historian C. n Woodward spotted the potential gers of a new ruling class untamed imits of place or memory. "For a negie, a Rhodes, a Krupp, a Rocke- r, or even Henry Ford," Woodward rved, "the past was still fairly rich sanctions. For their counterparts (if of the 'postindustrial' world, it is hard to see what the past provides in the way of sanctions."

In the worst case, this new group of people could represent the undermining of the last social bonds that hold the affluent elites to those who depend on their decisions for daily sustenance. They could grow even more indifferent than the Roman nobility, who ultimately undermined one empire, or the British industrial aristocracy responsible for the fall of another. As economist David Friedman has noted, they could end up like the "Spacers" — the highly evolved, indifferent, and elitist space-dwellers portrayed in the sci-fi detective novels of Isaac Asimov.

Yet as Woodward himself acknowledged, this new way of life — and its "spiritual environment" — are consistent with the American experience. It is relentlessly individualistic, more concerned with exploiting technology to create the best life possible for the company, the family, and the self than worrying about larger, societal implications. Such relentless individualistic spirit has been the quintessential

element of American history, as well as arguably the source of our unparalleled technological evolution.

As for the consequences for society, perhaps we would do best, as Metcalfe suggests, to leave them to the verdict of time itself. "A lot of people say you should live in the city because it's more efficient and environmentally and socially responsible. I don't know if that's true," Metcalfe says. "And, to be frank about it, I'm not sure I would care if it were." ■

Joel Kotkin is a senior fellow at the Pepperdine Institute for Public Policy. He is the author of The Valley and Tribes: How Race, Religion, and Identity Determine Success in the New Global Economy.

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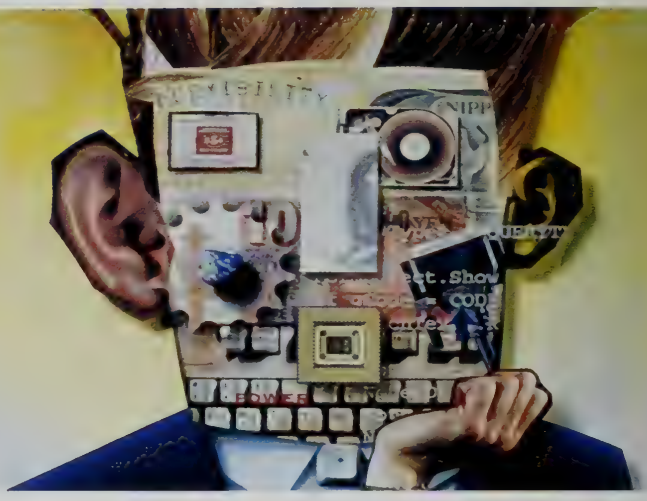

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The Next Network

THE GORILLA GUYS

The big bad Internet will soon look like child's play.

ANOTHER TORNADO IS FORMING on the horizon—bigger than the world's telephone network and with the potential to create more wealth than the PC industry. What is it? A broadband, packet-based public network. No, we aren't talking about the Internet. We're talking about a completely new, ...h bigger network that will have a far greater ...act on our lives.

...lost people believe that the Internet is here to ... But what most people do not fully appreciate ...at the Internet is dead and that what is coming ... make the Net look like child's play. The Inter... was never built to handle the traffic needs of ...ications that are now being deployed, or will be. P..., the circuit-switched network will not scale, despite its ...quitous access. The new network will look like the Inter... but will offer much greater scalability, while at the same ... offering the robustness and omnipresence of the current ...uit-switched network.

Gorilla Paul Johnson

...his new network will generate an incredible amount of ...th and will be driven by a new set of companies that will ...n right by the old, established players. In this regard, the ...orical record is conclusive: IBM dominated the mainframe ...stry but was only a second-tier player in minicomputers. D...tal Equipment was the dominant vendor in minicomput... ...ut was an also-ran in PCs. Microsoft, Intel, and Compaq ... been wildly successful in the PC industry, but none of ... is a leader in enterprise networks. That title goes to Cisco ...ems. In the next few years, however, some unknown com... will rise to eminence, just as Cisco, Microsoft, and Intel ... It will happen again; history is our guide.

...o who are the IBMs, DECs, Microsofts, and Ciscos of the ... network wave? It is definitely too early in its develop... ...t to crown the gorilla in this market, but there are several ...essive startups that have a real shot, and all of them are ... private companies.

... few of these promising companies, which will make the ...pment that will form the foundation of the new network, ... Castle Networks and Sonus Networks, which manufacture ...-generation, distributed voice switches; Cerent, which will reprice the traditional telco transport market; and Juniper Networks, which will run the new network's Internet protocol-routed core. All of them will likely be riding on top of the next-generation optical equipment from Chorum Technologies, Corvis, and Sycamore Networks.

These entrepreneurs are combining the best from the data world with the best from the traditional telecommunications world. Internally, these systems will benefit from Moore's Law, modular software, and standards-based interfaces and protocols. Externally, they will be fully redundant, carrier class, and NEBS (Network Equipment Building Standard)-compliant. Think of this as Moore's Law meets the telecosm. These devices already offer 50 to 100 times the performance of existing equipment from traditional vendors and have Moore's Law designed into their futures.

THESE COMPANIES ARE distinguished by two factors. First, they are packed with veteran managers and engineers. Many of the managers are on their second and third startup, with 20-plus years of business experience. The senior engineers have produced several generations of successful system designs. Second, they have business plans that address the current market leaders. And guess what? They don't really care about Cisco, Lucent, Tellabs, and Nortel Networks, because to succeed they only need to make an end run around them. ■

Geoffrey Moore, Paul Johnson, and Tom Kippola wrote The Gorilla Game *as well as this column. The authors offer professional services to, and hold financial positions in, some of the companies mentioned in this article.*

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CHORUM TECHNOLOGIES
chorumtech.com
Date founded: 1/96
Expected IPO date: None yet

CORVIS CORPORATION
No Web site
Date founded: 6/97
Expected IPO date: 2000

JUNIPER NETWORKS
juniper.net
Date founded: 2/96
Expected IPO date: NA

SONUS NETWORKS
sonusnet.com
Date founded: 8/97
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On the Internet, even nonconformists can reach out and find someone.

Alone but Not Lonely

VIRGINIA POSTREL

ANN LANDERS RECENTLY published a letter from a woman pregnant with an anencephalic child, which means her baby will be born with only a brain stem and will die shortly after birth. Faced with the same sad circumstances, the overwhelming majority of women would opt for an abortion. But this woman is sual: "I am proud to say in the U.S.A., a woman has the right choose between pregnancy and abortion," she tes. "I choose to have my baby."

Along the bell curve of maternal experience, the r writer is far off on the fringe: She is an oddity, onconformist, seemingly alone in the world. family and friends disapprove of her peculiar ice. She can't find an anencephaly support group he entire state of Michigan—not surprising, e support groups require common experience, and hers is dedly uncommon.

But being unusual is not the same as being alone. In a coun- whose population tops a quarter billion, 1% of 1% is still of thousands of people. The trick is to slip the bounds of l geography—to search for a group large enough to contain r unusual people.

hat used to mean traveling to the largest city you could h or maybe finding an obscure magazine or newsletter ubscribe to. Nowadays, it means searching the Internet. s woman did just that. Through the Net, she found other hers of anencephalic infants who could offer comfort and ce. She also got in touch with support groups for moth- who had lost children. "The Internet," she writes, "has been dsend."

t is striking enough to find Ann Landers publishing a let- praise of the Internet. She and her audience are on no one's ing edge. The letter is a sign of how thoroughly the Net ecome a part of everyday life, how fully its power has been rbed into our culture.

ut what is really interesting about the letter is the writer's erlying message: The Internet means you don't have to be e—no matter how unusual you seem to be. On the Internet, people on the tails of the bell curve can find one another.

Every aspect of human identity, from size, shape, and color to sexual proclivities and intellectual gifts, comes in a wide range. Most of us cluster somewhere in the middle of most statistical distributions. But there are lots of bell curves, and pretty much everyone is on a tail of at least one of them. We may collect strange memorabilia or read esoteric books, hold unusual religious beliefs or wear odd-sized shoes, suffer rare diseases or enjoy obscure movies. Our distinguishing trait may be good or evil, important or trivial, transitory or permanent.

Having spent a century discovering the middle of the bell curve—the mass market, the mass media—we are only now realizing that this "mass," by its very massiveness, guarantees amazing variety. By lowering transaction costs, the Net makes it easier for businesses to serve the entire distribution rather than just the middle. It can offer every book in print, for instance.

BY GIVING UNUSUAL PEOPLE an easy way to find one another, the Internet has also enabled them to pool rare talents, resources, and voices, then push their case into public consciousness. The response, in many cases, is a kind of hysteria. Media gatekeepers yearn for the good old days of a "common culture," as defined by three TV networks and near-monopoly newspapers—a culture in which no one could see the outliers. The Internet, we're told, is a place of scary hate groups, strange religions, bizarre sex, and way too little editing.

But far more significant is the happiness engendered by a medium that is sociable even when it is merely supplying passive information. On the Net, the bell curve reclaims its tails. The uncommon is as accessible as the common. The very fragmentation of the Internet allows us to find ourselves in other people—and to know that we are not alone. ■

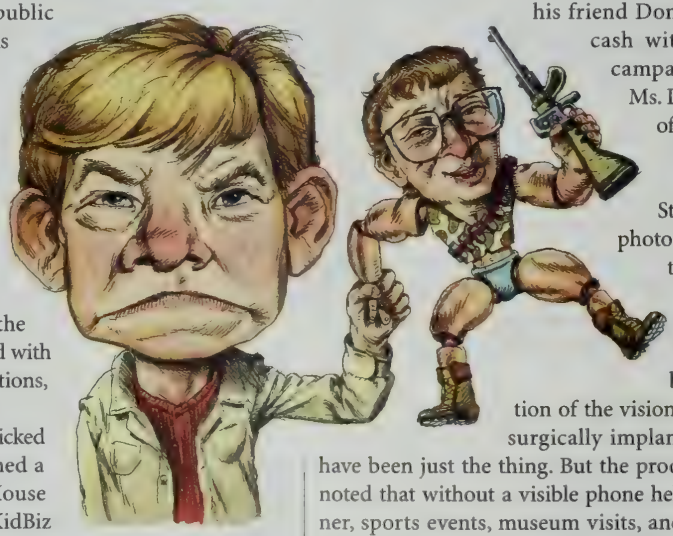
Virginia Postrel (vpostrel@reason.com) is the editor of Reason *magazine and the author of* The Future and Its Enemies. *Her Web site is at www.dynamist.com.*

OWEN EDWARDS

Things That Didn't Work

One man's list of last year's hapless hopefuls

GIVEN THIS ISSUE'S THEME of old ideas reborn (supercomputers) and new ideas that probably haven't a chance (using supercomputers to predict markets), the time is appropriate for my biennial listing of big ideas that fell flat. Whether you're trying to sell high tech or low dreck, you soon discover one immutable truth: America's consuming public is maddeningly fickle and works in baffling ways. How else can we explain the fact that people lined up around the block to see a stupefyingly boring movie about the *Titanic* (sink, already!) but paid scant attention to a World Series featuring one of the greatest baseball teams of all time?



So it's hard to explain why the following fine ideas, all conceived with the highest hopes and best intentions, failed to reach Furby territory.

• **Tech Tiger Action Figures.** Panicked by the rumor that Mattel planned a Christmas release of White House Intern Barbie, the planners at KidBiz Toys produced GI Bill Gates and his arch rival Mighty Marc Andreessen, plus Sting-Man Steve Jobs, Nasty Nathan Myhrvold, and Jolting John Doerr. The plan had been to steal some thunder from hot-selling World Wrestling Federation figures, but the idea of kick-ass nerds just didn't play.

• **Imelda.** Hoping to establish an off-off-off-Broadway production center in Palo Alto (called Schubert Valley), investors poured their money into this pop opera based on the shoe-crazed wife of the late Philippines dictator. The big song, "Don't Cry for Me, Ferragamo," failed to get a foothold on the charts, and the show closed in previews. Alas, the group's next venture, *Jake!*, a musical version of *Schindler's List,* closed after one night.

NFL Senior League. The theory: If a large audience watches overweight older men play golf, the sight of Joe Namath, Mean Joe Greene, and other football heroes of the past thrashing and wheezing might have similar appeal. The reality: a 2 share against Olympic curling tryouts. *Entertainment Weekly* pointed out that the sight of 10 ambulances parked along each sideline discouraged audiences. Fox then decided to pull the plug on its planned Golden Years Network, which in turn scuttled a new clothing chain, Elder Gap.

• **Monica Lewinsky's "Got Milk?" ad.** When Gary Hart ran his presidential aspirations onto a reef aboard the *Monkey Business*, his friend Donna Rice pocketed some cash with a No Excuses Jeans campaign. So who can blame Ms. Lewinsky for trying to pay off some of her legal fees by flirting with Madison Avenue? But when Kenneth Starr subpoenaed the entire photo studio to run DNA tests, the ad vanished.

• **In-Head Phones.** In the terribly important lives of people who can never be out of touch, the notion of the visionaries at Fab Telecom—a surgically implanted cell phone—might have been just the thing. But the product tanked when critics noted that without a visible phone held to the ear during dinner, sports events, museum visits, and church, In-Head users would just look like people who talk to themselves.

• **Jiffy Leech.** "An End to Bad Blood" read the promotional copy for a drive-in "exfusion" chain, where customers with hangovers, high cholesterol, or just plain bad attitudes could drive in, have a few hungry leeches slapped on their arms, and watch their faulty hemoglobin drained off. Unfortunately for Bleeding Edge Tech, the chain's backers, the first two Los Angeles outlets were burned down by a well-known gang that misread the promo.

• **Melrose Space.** According to *Daily Variety,* Aaron Spelling has always envied the fact that Gene Roddenberry's *Star Trek* series appears capable of generating spin-offs forever. So he set a new show on a research station in low orbit around one of Jupiter's moons to get more mileage out of his suborbital soaps. Everyone was still bad and bitchy, except now nobody weighed a thing. But the show, with its relentless ads ("NASA was never this nasty before"), failed to attract loyal Melrose watchers, who already consider Southern California another planet.

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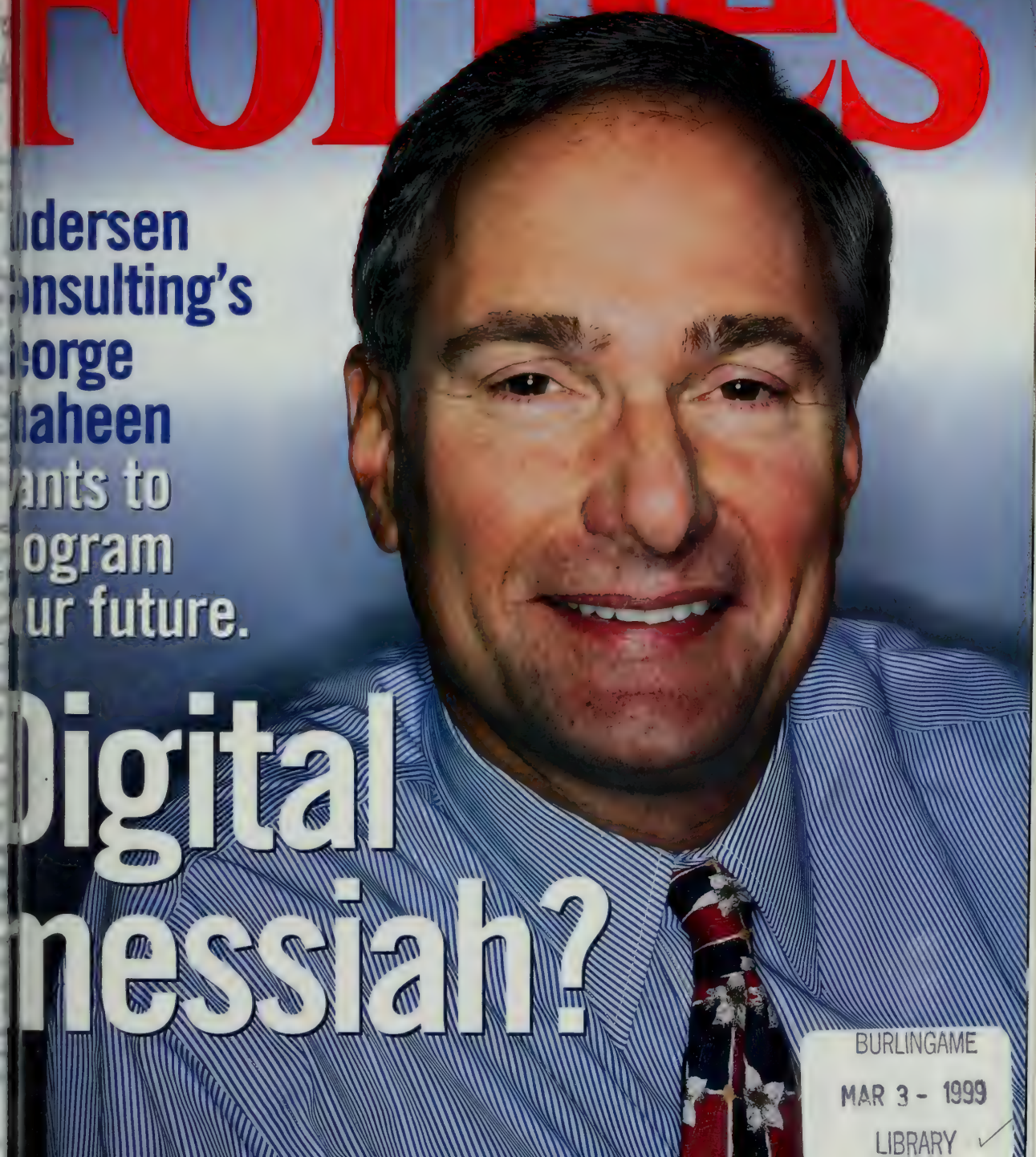

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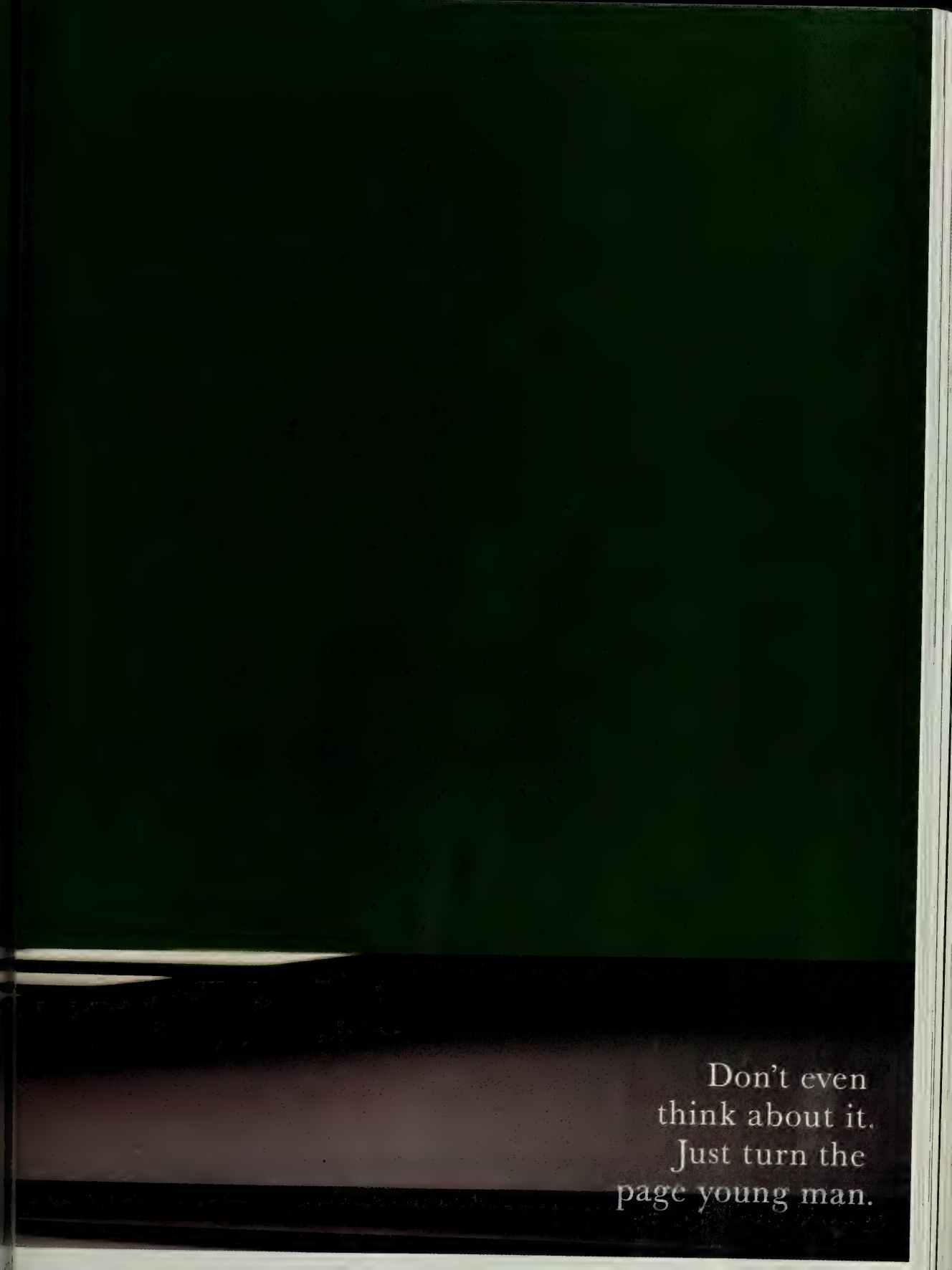
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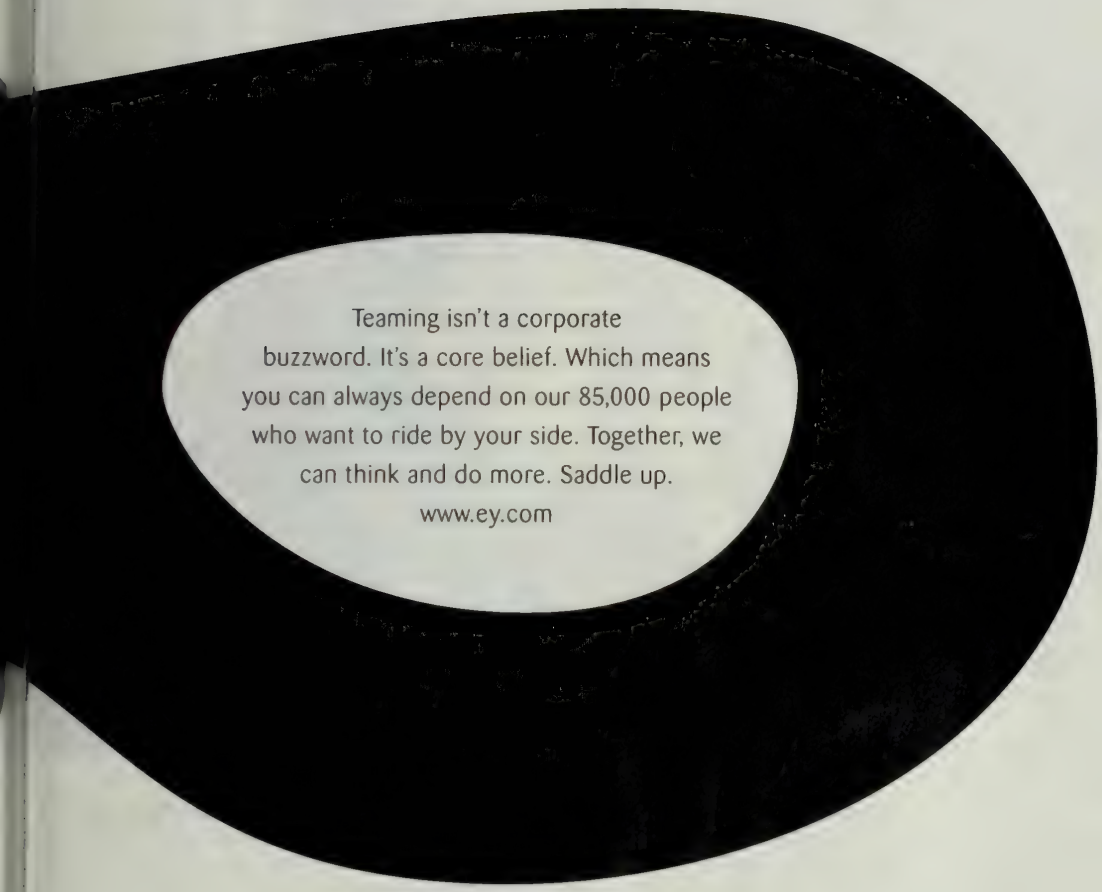

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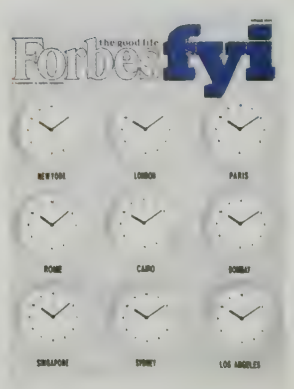

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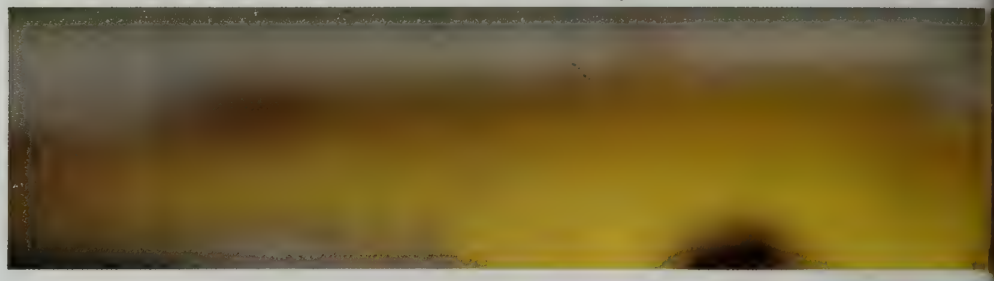

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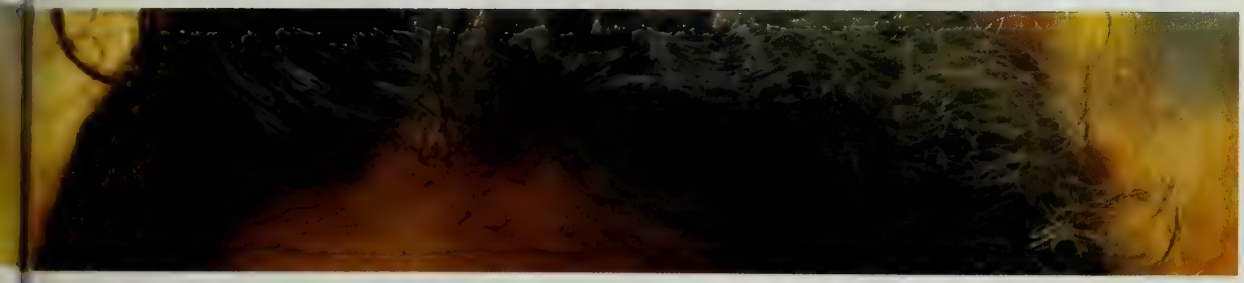

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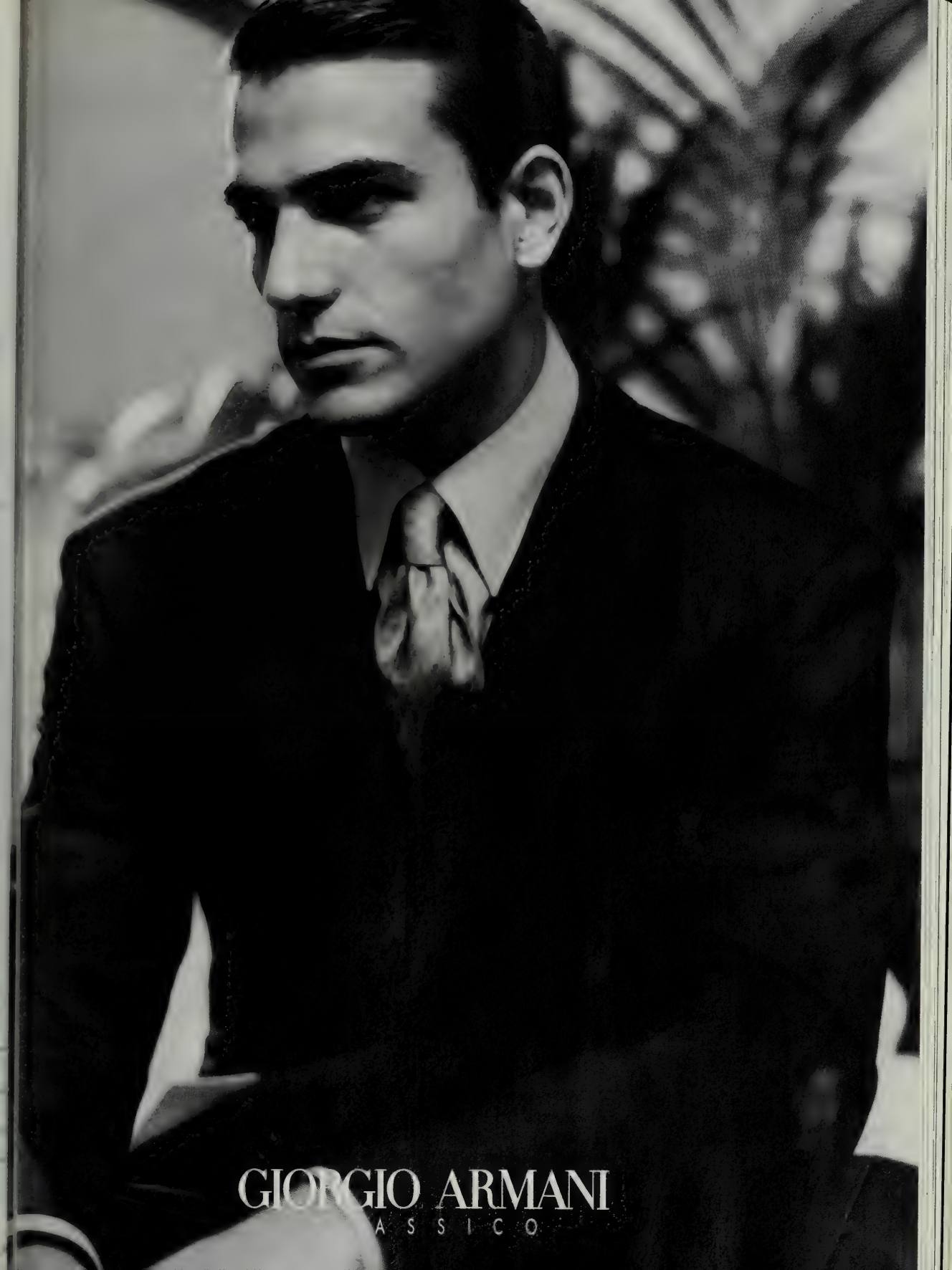
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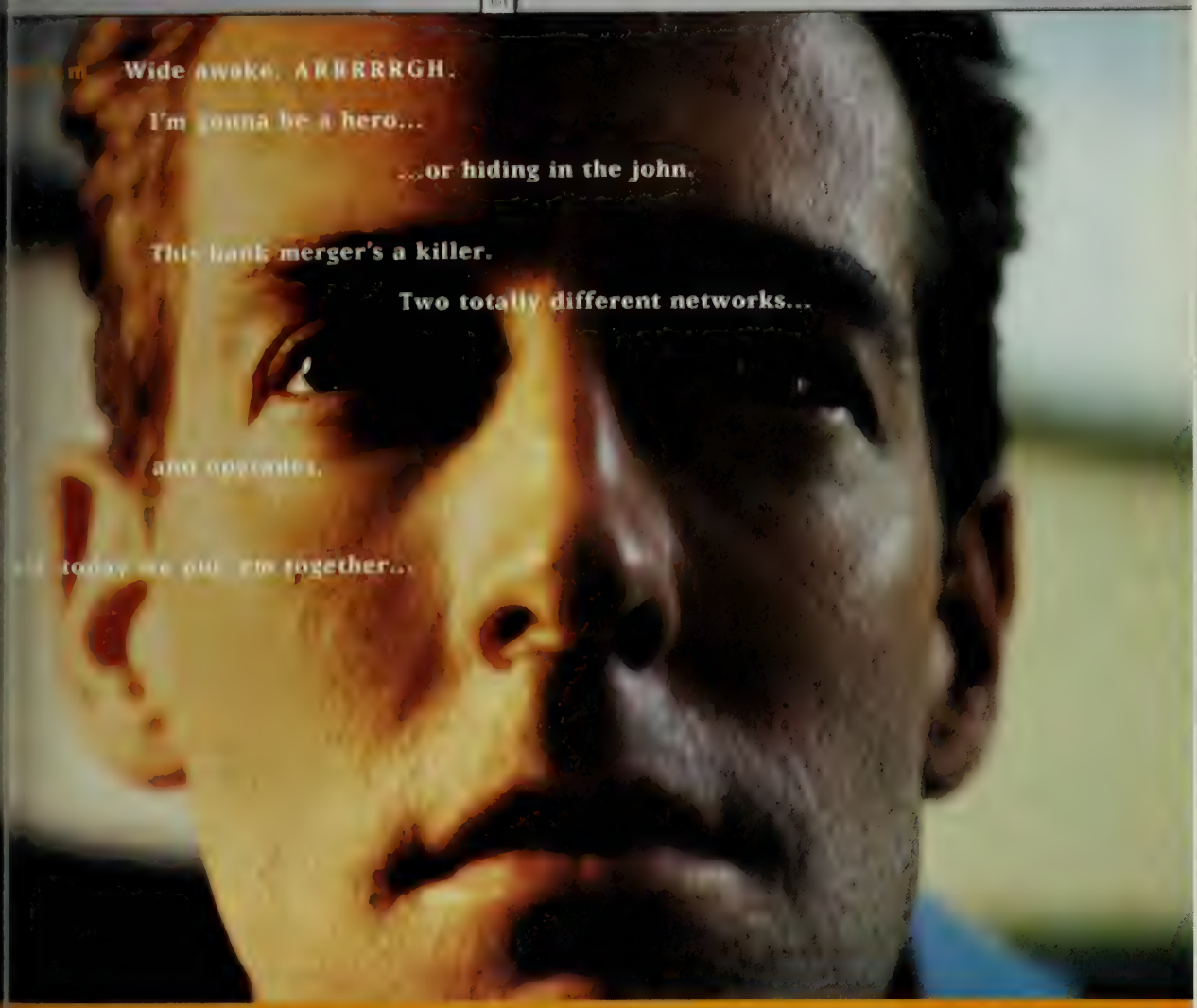

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The irreverent art director

IN 1978 a freelance graphics artist, then midway through career, joined this magazine as art director. For the next 21 ye Everett Halvorsen rode a winning streak as the magazine doubl in size, added color photography and went through two redesig The talents that enabled him to succeed included the ones y would expect in any art department: creativity, a good eye, diplomacy. But there was another that was peculiarly valuable to this iconoclastic magazine: irreverence. He kept reminding the editors, and the readers, that they shouldn't take themselves too seriously.

Everett Halvorsen

Classic Halvorsen mischief was to come up with a cover design for one issue that parodied *Business Week*. For the cover that went with a story on the sorry st of our schools he made our logo FORBS. We got a lot of mail fr schoolteachers criticizing our spelling.

Ev retired Feb. 16. He is succeeded by Robert Mansfield, w joined FORBES in 1982 and has served most recently as art dir tor of our sister publication, FORBES GLOBAL BUSINESS & FINAN I expect Bob to continue the iconoclasm.

Hardware, software, consultware

IBM SHIPPED its first Model 650 to an insurance company December 1954 and for the next quarter of a century this ha ware manufacturer owned the computing business. After a wh another king of computing emerged and it is a software compa Who will dominate the third era of computing? The future mig well belong not to a company that makes boxes, chips or softwa but to a company that integrates these things into solutions business problems. The future could belong to an outfit l Andersen Consulting.

To a degree that you will find surprising if you don't know company or its chief executive, George Shaheen, Andersen defi the technology used by thousands of businesses, from oil prod ers to airlines to telephone companies. "The messiahs of the n work," by Robert Lenzner and Joanne Gordon, tells where Sh heen is taking this fast-moving firm.

Gordon worked indirectly for Andersen in the mid-1990s, l her perspective for this story comes from talking to dozens Andersen's recent clients and employees. "Tom Watson ha vision and Bill Gates has a vision. Shaheen has a vision, too— wants to own your company's data," she says. The story starts page 98.

William Baldwin

Editor

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Readers say

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New media, old hat

What a unique concept: a "new-media visionary" without a clue! So Geraldine Laybourne ("The Convergence Gamble," *Feb. 22, p. 112*) envisions airing TV shows for female executives during working hours, when they can't watch? A rehash of MTV's *Real World*? And more reruns of old sitcoms? Be still my heart! Any neophyte in the on-line content business could have given you more insight into the future of interactive media. I expected better from you than this fluff piece.
–JOAN E. LOY
Sunland, Calif.

Wrath of a salesman

Some people are able to sell their homes themselves and save on a realtor's marketing fee ("Realtors 1, Web 0," *Feb. 8, p. 64*). More power to them. Free enterprise at work. But I am sick and tired of people contracting with realtors like myself to perform a complicated task, then calling us nothing but a bunch of money-grubbers. If you don't value what we do, don't call us. Do it yourself.
–MATTHEW CARNS
College Park, Md.

No sale

You listed the Fidelity Growth & Income Fund as a "Best Buy" in your mutual fund survey *(Feb. 8, p. 124)*. Well, it's a no-buy! The fund is closed to new purchasers. It took half an hour going through Fidelity's automated telephone system to find that out the hard way. We are very annoyed and disappointed subscribers.
–JANE and RICHARD WELTZ
New York, N.Y.

The fund shouldn't have appeared in our list. It is still open to current shareholders and investors whose 401(k) plans offer the fund. –ED.

Heart smarts

Your article about interactions between Sensormatic Electronics' antitheft system and patients with implanted medical devices ("The zapping of Sensormatic," *Jan. 25, p. 51*) scrambled the facts. Every published study has shown that acoustomagnetic gates interact with pacemakers. The FDA is sending an advisory letter to cardiologists around the country advising them of these interactions. Patients shouldn't panic, but they shouldn't linger near these gates.
–MICHAEL E. MCIVOR
Medical Director, Research Section Heart Institute of St. Petersburg St. Petersburg, Fla.

Growth, not graft

Your article on the Japanese construction industry ("Japan's cement shoes," *Feb. 8, p. 82*) is groundless and seriously defames Japan. You say the industry is deeply connected with *yakuza*, the Japanese mafia. This is a gross misrepresentation of the present situation, probably prejudiced by events up until the 1920s. You also conclude that public infrastructure development in Japan is a "waste" by comparing the American and Japanese public works budgets. In Japan, full-scale development of public infrastructure began only in the 1960s, and has

Stewed in steerage

You've essentially bought the airlines' complaint about their passengers' increasingly rude behavior in the coach section ("Jetiquette," *Feb. 8, p. 169*). You don't get it: If you treat people like animals, they will behave like animals. It's that simple. Today's coach traveler is caged in ever-shrinking seats, crammed in with ever-growing numbers of passengers, forced to substitute peanuts for real food and has to breathe stale, bacteria-laden air. When the airlines return to a modicum of respect for human dignity and comfort, their passengers will act like humans again.
–CHARLOTTE ANDERSON
Wayne, Pa.

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tackled a unique set of obstacles such as mountainous terrain. That translates into higher construction costs. There seems to be no rationale for making simple budget comparisons with other countries. The Government's serious efforts in this regard have enjoyed strong public support.
–KAZUO KODAMA
Counselor for Public Affairs
Embassy of Japan
Washington, D.C.

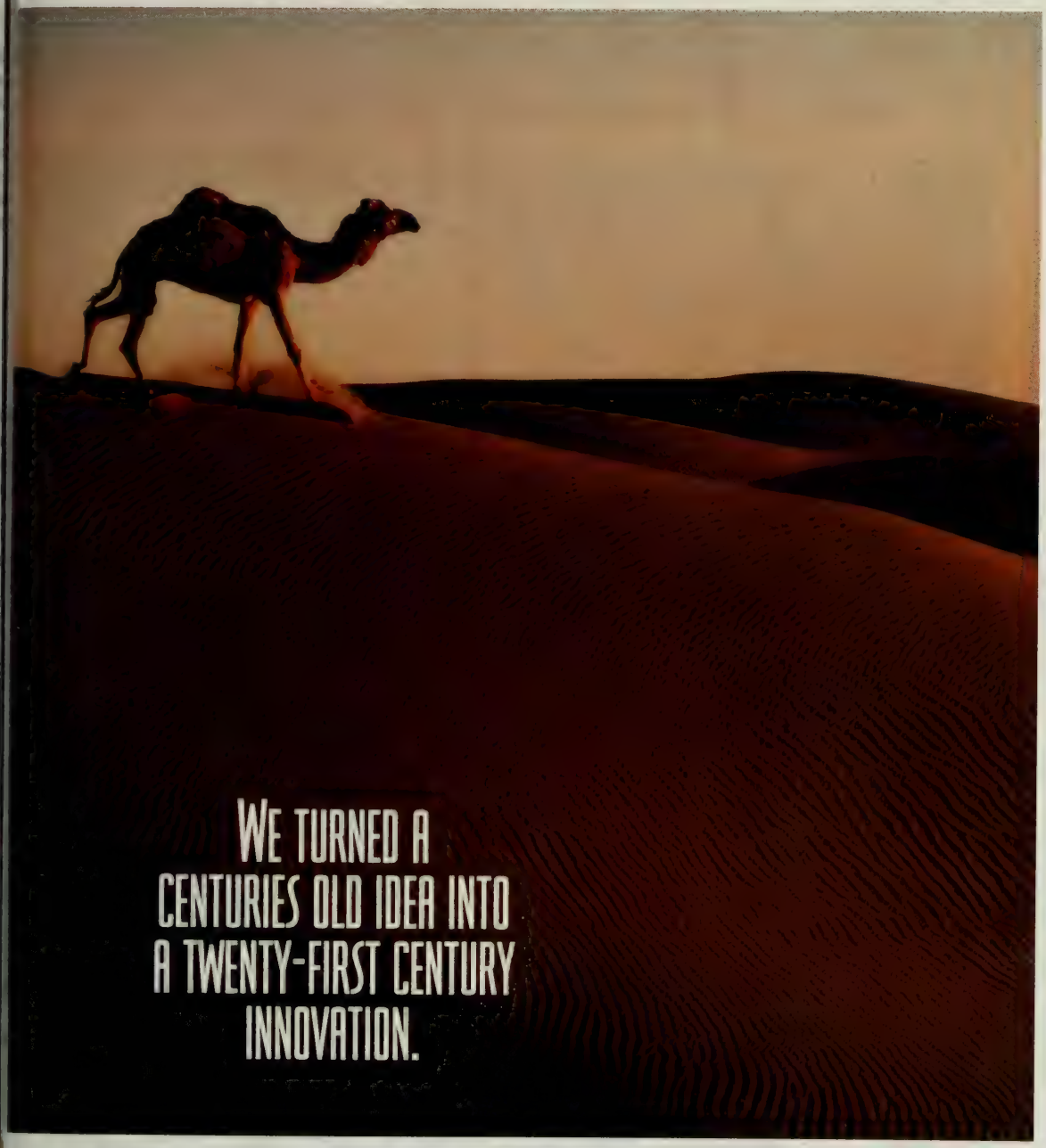
We want a recount

While we were pleased to be described as a top-drawer venture firm ("Status seekers," *Jan. 25, p. 70*), we feel your evaluation methodology penalized us for backing so many companies that went public. Measuring our portfolio's performance using total return an investor who bought our 15 IPOs since 1994 would have received a 424% return. This analysis does not include two IPOs that have been acquired in that period.
–JOHN W. JARVE
General Partner
Menlo Ventures
Menlo Park, Calif.

Brave new workplace

In my previous job, as a director of nursing, I used a staff tracking system similar to the Versus Technology system you wrote about ("They spy," *Feb. 8, p. 47*). We used the system to support the staff, not to oppress them. Any new technology has potential drawbacks. It's management's responsibility to use it appropriately.
–ARLENE RICKER
Wexford, Pa.

Letters should include the author's address and phone number.



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Office Depot increased sales by millions of dollars by enabling over 20,000 of their business customers to purchase goods with custom catalogs and pricing.

Sainsbury, one of the UK's largest retailers, is integrating hundreds of disparate suppliers via a Web-based value chain management system.

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Edited by Susan Adams

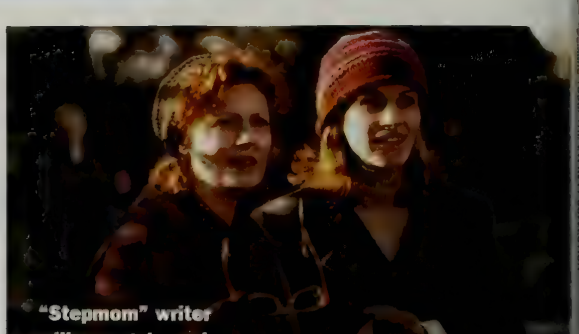
Payback

WE DUBBED THEM the "idea moguls" last fall—the bright young people who generate the ideas and write the scripts for movies and TV shows *(Sept. 21, 1998)*. We noted how they have become a powerful and rich new breed of Hollywood talent.

Now they're about to become even more powerful and wealthy. Acknowledging their increasing value, Sony's Columbia Pictures agreed in February to give writers a stake in a movie's gross proceeds. They'll get 2% of gross receipts for sole writing credit and 1% for a shared credit—all on top of million-dollar-plus fees for penning stories.

Gross receipt royalties are prized because they come before the studio siphons off its "distribution fee," which can amount to as much as a third of the gross.

Columbia negotiated the deal with a group of 33 elite writers, including Ron Bass (*My Best Friend's Wedding*, *Stepmom*) and Nicholas Kazan (*Reversal of Fortune*).



"Stepmom" writer will now get a cut

Will screenwriters ditch other studios in favor of Son Says Bass: "If you're sitting around with your idea, wl wouldn't you take it to a studio who is not afraid paying writers?"

–ANNE LINSMAYE

Meat of the problem

TWO ISSUES AGO, we ran a story about how meat irradiation could save lives. Twelve people recently died after eating contaminated hot dogs. Our story noted that bureaucrats at the U.S. Department of Agriculture had been sitting on an irradiation plan since December 1997.

Progress: Just weeks after our story appeared, the USDA gave the go-ahead to the meat industry to use irradiation, which destroys bacteria by showering meat with electrons, gamma rays or x rays. Unfortunately, the regulations apply only to uncooked red meat. Covering cooked meat like hot dogs will require a new proposal, which could take years to get through the regulatory labyrinth.

Another problem: It's not clear when or if the beef industry will use irradiation. The public still harbors irradiation fears. Since 1992, irradiation has been approved for chicken producers, but it is used on less than 1% of the output. —S.A.

Ultra high hopes

TWO YEARS AGO we chronicled Lowell (Bud) Paxson's attempt to build a television network by buying up UHF stations *(May 19, 1997)*.

In August, Pax-TV went live—and immediately the skeptics surfaced. New networks like Time Warner's v are moneylosers, they said. Paxso Communications' stock is down \$9 from a high of \$13. Pax lost \$5 million in the third quarter of 199

Naysayers take heed. Unlike cor petitors, Pax-TV owns its distribution over 75 profitable UHF stations—ar has kept programming costs dow to a third of what network affiliat spend. Paxson has branded Pax-T the "family-friendly network" and ru original programming like *Flippe the New Adventures*. The Pax netwo has inched up to a 1-point nation rating during prime time, which mea that 1% of the homes with TVs a watching it. –COLLEEN MASTONY ■

FLASHBACKS

The third rail

SIXTY-TWO YEARS AGO IN FORBES
JUNE 15, 1937

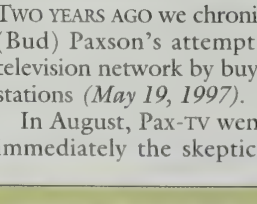
In principle, the Social Security Act is sound, desirable, laudable. But the law embodying it is extremely faulty. The idea of accumulating a reserve of \$47 billion to be invested in Government debt is crassly wrong. It fosters political overspending. The whole subject demands far profounder study than it received by a pliant, rubber-stamp Congress.

President Clinton's desire to "save" Social Security might be laudable too, but as Alan Greenspan has pointed out, his plan is based on shaky budget assumptions.

Battery not included

TWENTY YEARS AGO IN FORBES
MARCH 19, 1979

The electric car: Last June Congress produce



AP/WIDE WORLD

Vintage EV—1974.

\$30 million to spend on 165 electric vehicles for private use and another 35 for U.S. agencies. Today some EVs are actually on the road. For fiscal 1979, Congress raised the ante from \$30 million to \$37.5 million, which will support cost-sharing experiments for 600 EVs for state and local governments, federal agencies and private companies.

Some 2,000 EVs are now on the road, but attention today is on the hybrid, like Toyota's Prius, a gasoline- and electric-powered car that gets greater range.

Oregon's tax phobia

TEN YEARS AGO IN FORBES
FEBRUARY 6, 1989

Welcome to the state of Oregon. Major roads are disintegrating, overtaxed sewers in Portland and its suburbs are leaking sewage into rivers and streams; there is little money for many public services. Why the apparent paradox of general prosperity coupled with failing public services? The very aversion to high taxes and excessive spending that helped produce the prosperity may have been taken too far. Says James Shaw, a California accountant who moved to Oregon's north coast in 1980: "People here vote down anything that requires money, even good causes like schools."

The paradox—strong economy–bad public services—lives on today. And so does Oregonians' aversion to taxes.

–Edited by Dolores Lataniotis

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Edited by Katarzyna Moreno

Executive bookmarks

By Amy Doan

JAMES YANG

What Internet sites do computer executives go to most often? Here are some of their bookmarks.

John McGuire

Chief Executive
Trintech Group (e-commerce software)
Dublin, Ireland
I'm addicted to the site that lists the registration and flight details of private jets taking off around the world (www.landings.com). That way I can keep tabs on my better-heeled competitors. If I see that [IBM chief] Lou Gerstner is heading to São Paulo, I get on a plane fast because we have clients there.

Douglas Chance

President
Wyse Technology (hardware)
San Jose, Calif.
I buy wine from the Clos LaChance winery (www.clos.com). This winery was founded by Bill Murphy, the Internet marketing director at Hewlett-Packard. Some other Valley guys like Bill Krause of 3Com have put vineyards in their backyards. They contribute grapes to Clos LaChance. In return, they get to keep half the wine or take a fee.

I love their wines. I don't have a vineyard, but I have a cellar. It's about one-third full of wines from this site.

Bradford Oberwager

President and Chief Operating Officer
GreenTree.com (Internet health food store)
San Francisco, Calif.
The site www.sixdegrees.com is based on the theory that everyone on the planet is separated from everyone else by six degrees of separation.

You sign up and type in e-mail addresses of six of your friends. Then they get six of their friends to join, and you become part of "the big cloud." You use your group of virtual friends for networking, mostly when looking for a job.

"You type in your birth date and disposition, and you get the exact date of your death."

Royal P. Farros, chief executive, Iprint.com

Royal P. Farros

Chief Executive
Iprint.com (Internet printing software)
Redwood City, Calif.
I like www.deathclock.com: It lets everyone know when they're going to expire. You type in your birth date and disposition, and you get the exact date of your death. And a clock pops up that ticks the seconds down.

My personal expiration date: Jan. 19, 2033. It's a useful reminder that life is slipping away.

Jerry Yang

Founder/Chief Yahoo
Yahoo
Santa Clara, Calif.
It's not just about individual sites anymore, but areas of interest—URLs taken as a group. also love the stuff that NASA (www.nasa.gov) doing on-line.

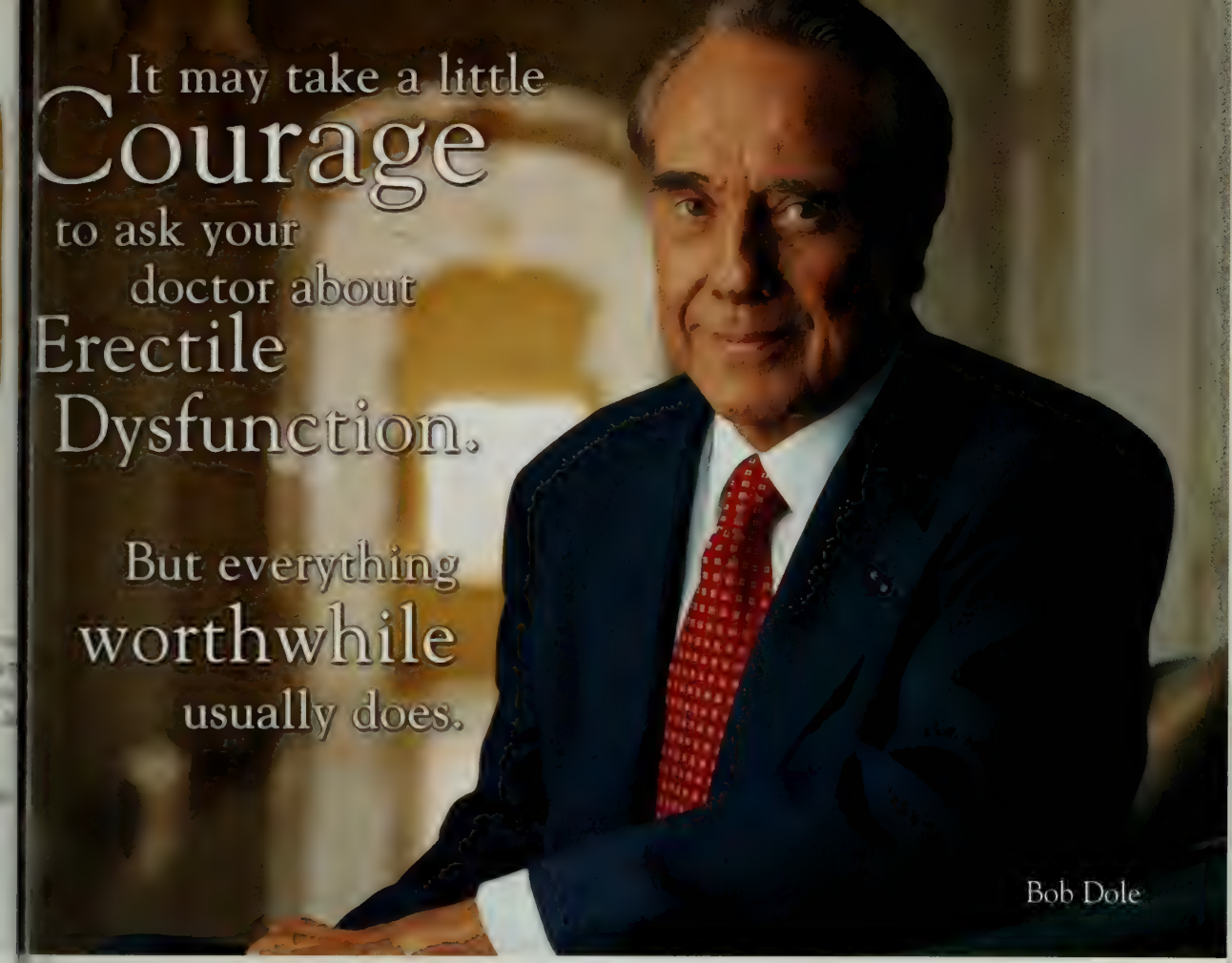
You can look at a satellite view, down to within one square foot, of some street in San Francisco from your screen at work.

Bradley Rowe

Chief Executive/President
Puma Technology (software for handheld devices
San Jose, Calif.
When I am done poring over my finances on the Internet, I'll often check out fractalcow.com/bert/bert.htm.

It's got a section called "Bert is Evil." It h a picture of Bert [from *Sesame Street*'s Bert & Ernie] in a police lineup and a bunch of conspiracy theories involving Bert that people submit. I never trusted Bert anyway. ■

What's on your mind? Tell the world. Go to our new On My Mind forum in the Forbes Digital Tool at http://www.forbes.com/mind, or e-mail us at mind@forbes.com.



When I was diagnosed with prostate cancer, my first concern was ridding myself of the cancer. But I was also concerned about possible postoperative side effects, like erectile dysfunction (E.D.), often called impotence. So I asked my doctor about treatment options.

I'm speaking out now in the hope that men with E.D. will get proper treatment for a condition that affects millions of men and their partners.

Most E.D. cases are associated with physical conditions or events, like the prostate cancer surgery I underwent. The most common causes of E.D. include diabetes, high blood pressure, spinal cord injury, or surgery for the prostate or colon. E.D. can also be associated with smoking, alcohol abuse, or psychological conditions such as anxiety or stress.

The good news is that many effective treatments are available for E.D. But the important first step is to talk to your doctor. Together, you and your doctor can decide which treatment is best for you.

Now it's up to you to get the treatment you need for E.D. My advice is to get a medical checkup. It's the best way to get educated about E.D. and what can be done to treat it. It may take a little courage, but I've found that everything worthwhile usually does.

For more information about erectile dysfunction, please call 1-800-433-4215.

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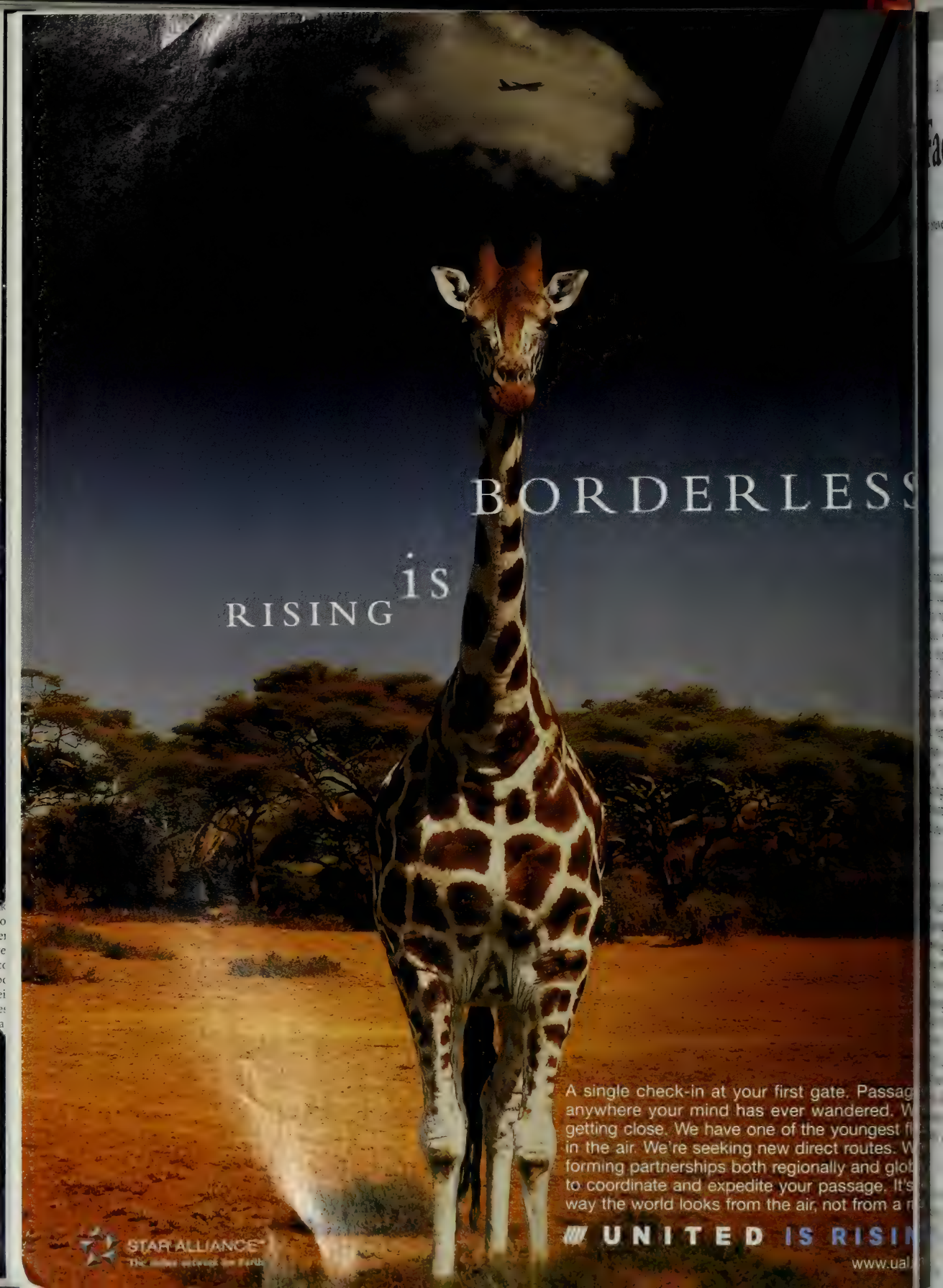
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Fact and Comment

By Steve Forbes, *Editor-in-Chief*

ULTIMATELY, JUSTICE WILL BE DONE

The President escaped conviction by the Senate. But he won't escape the verdict of history. Given the President's personality, in fact, he will provide further fodder for the disapproving muse.

COUNT ON IT

In the years ahead, revelations about this Administration will show a pattern of abuse of power unprecedented in the annals of the presidency.

BIG BROTHER, BANKER

WASHINGTON WANTS YOUR BANK to spy on you. Four federal financial regulatory agencies have proposed "know your customer" rules that would force every bank to "determine its customers' source of funds; determine the normal and expected transactions of its customers; monitor account activity for transactions that are inconsistent with those normal and expected transactions; and report any transactions of its customers that are determined to be suspicious." Ostensibly this program would help fight crime. In reality it is a Soviet-style intrusion into your privacy. Who says the era of big government is over?

You could be required to give your bank the source of every deposit. If you got a bonus or sold a house and deposited the proceeds, the bank would flag the transaction as out of your normal pattern of banking, and you may have to answer questions from federal authorities. Why, in a free country, would citizens be required to give an explanation to the government every time they broke their banking routine?

Representative Ron Paul (R–Tex.) has introduced legislation to block these regulations, correctly pointing out that the government should have access to this kind of information only under a search warrant.

WAKE-UP CALL FOR THE AIRLINES

SENATOR Ron Wyden (D–Ore.) and Senator John McCain (R–Ariz.) have introduced a bill, the Airline Passenger Fairness Act, that would strike most weary passengers as eminently sensible, straightforward and long overdue.

Among the bill's provisions: Carriers would have to tell passengers when a flight is oversold and the real reason a flight has been delayed, diverted or canceled. Ticket buyers would have the right to a refund within 48 hours of purchasing a ticket, even "nonrefundable" ones. The airlines would have to provide those customers who ask with all the different fares charged for a particular flight. Customers would also have to be informed how many seats were available to purchase with frequent-flier miles—carriers haven't made it easy to compare one frequent-flier program with another.

Finally, the industry would be prohibited from barring customers who engage in creative, fare-saving ticket-buying. For example, under the industry's byzantine fare structure, it is sometimes cheaper for a traveler to purchase a ticket to a distant city but to leave the plane at an intermediate stopover point—which is his actual destination.

The industry's rough handling from congressional tax writers in 1997 was a warning, mostly ignored, of growing passenger ire. Airlines should not only embrace most of this bill but also start pumping capital to truly shrink the time a passenger typically waits for luggage.

ALASKA TRYING TO TREAT PASSENGERS WARMLY

OTHER AIR CARRIERS should take a cue from Alaska Airlines, which is working hard to eliminate the hassle passengers experience obtaining boarding passes and checking in their bags. (When it comes to carry-ons, only Continental, it seems, is taking the customer-friendly approach.)

A couple of years ago Alaska (disclosure: I own a handful of shares) began installing self-service check-in computer kiosks for passengers with electronic tickets. These machines ask the customers security questions, tell them if they qualify for an upgrade and quickly punch out their boarding passes. In fact, Alaska Airlines has a task force whose purpose is to develop procedures and technological advances that will eventually render traditional terminal counte obsolete.

AL GRILLO

Goal of quick check-in kiosk: No more hurry-up-and-wait at airports.

The carrier is already experimentir with self-service baggage check-in. T speed up the check-in process, it also h service agents roam the passenger lin with tiny printers that spew out boar ing passes.

Why can't other carriers wholehear edly embrace this customer-friend approach?

SIR-LY KING

KING HUSSEIN was a miraculous survivor. He sometimes made egregious mistakes but was nimble enough not to be destroyed by them. He not only preserved this once-artificial kingdom (arbitrarily created by the British after World War I) from often hostile, predatory Arab neighbors, but he also made Jordan into an increasingly self-confident, tolerant (at least by Middle East standards) state. That a newish, smallish, nonhomogeneous, resource-poor, relatively weak entity could endure and even prosper in the always-boiling cauldron of Middle East politics, while internally permitting a fair degree of freedom, is living testament to this king's skills.

COURTESY OF THE FORBES ARCHIVE

King Hussein, SF and MSF: Calm manner masked iron will and skill.

I met King Hussein several times, including an instance with my late father that he delightfully, self-deprecatingly described in "Fact & Comment" nearly two decades ago: *When Jordan's King Hussein repea edly called me "sir" it seemed eno mously flattering. The first occasion w when we carried him and his par aboard* FORBES' Highlander *on a tr up the Hudson River. In the course the voyage I couldn't resist asking hi all sorts of pertinent questions, accon panied by opinions (to which, as yo dear readers know, I'm a bit addicte The frequency of "sirs" in his eve sentence increased as time went on.*

It wasn't until I read Hen Kissinger's White House Years *that I understood why. Wro the ever-perceptive Henry K.: "Once I knew [King Hussei reasonably well I could measure his irritation at what he co sidered insensitivity or bureaucratic pedantry by the heigh ening of his legendary courtesy; his use of the honorific "si would multiply while he assumed a glacial demeanor."*

UNENDING APPETITE FOR YOUR MONEY

The Greedy Hand—by Amity Shlaes (Random House, $22.95). A couple of years ago I met an airline machinist who was married and had several children. He made a good wage as a machinist, but it wasn't enough. He had a part-time job as well, and his wife also worked, out of necessity. The couple worried they weren't spending enough time with their young kids. On paper they were doing well, but he said he finally figured out why their prosperity was more apparent than real—taxes. "If you add up what you pay in federal income taxes, federal payroll taxes, federal excise taxes, state income taxes, sales taxes, property taxes, utility taxes, gasoline taxes, water taxes, fees for automobiles, pets, not to mention the marriage penalty [an average of $1,400 per couple], almo one-half of our income goes to the government." An the man could have added that when he and his wife di the government will slap another tax on whatever the leave behind.

Amity Shlaes' well-written, well-researched book sub stantiates that machinist's observation. The autho not only details various taxes but incisively analyz the destructive impact of each. Particularly wort reading is the chapter on school taxes: Cour imposed school financing "reforms" have actual undermined quality because parents lose control their local schools. Shlaes concludes with a plea f simplifying our tax structure.

RESTAURANTS—GO, CONSIDER, STOP

Here is the distilled wisdom of brothers Bob, Kip and Tim, and other FORBES *eatery experts Tom Jones and Patrick Cooke.*

● **West 63rd Street Steakhouse**—44 West 63rd St. (Tel.: 246-6363). The steak, lamb, veal and lobster at this New York favorite are still tops.

● **Girasole**—151 East 82nd St. (Tel.: 772-6690). The ting is attractive and the service is fine. But the food at Italian spot is ordinary and overpriced.

● **Cena**—12 East 22nd St. (Tel.: 505-1222). One of pening, difficult-to-get-into places of the moment. Sc of the dishes are delicio s: broccoli soup with mango chutney and coconut cream; sautéed grouper wit lemon-braised fennel, black olives and tempura asparagu

● **Lespinasse**—St. Regis Hotel, 2 East 55th St. (Tel 339-6719). Celebrates food in a spectacular way. Amon the incredible offerings: truffle risotto with lobster, fa beans and white truffle emulsion; sautéed duck foie gr with sweet and sour apple compote served in a Fuji app with cranberry coulis; and grilled venison chops wit sautéed Swiss chard. ■

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Other Comments

Crash Course

AIR TRAVELERS are filing complaints against carriers at the highest rate since 1991. The number of passenger complaints per 100,000 passenger boardings was 26% higher in 1998 than the year before. Only two carriers saw a drop in complaints: Alaska Airlines and Southwest Airlines.

On a recent United Airlines trip in coach, [Colin Case] sat with his legs out in the aisle. Fellow passengers were stumbling over his feet. "When you can't put your knees together, you know something is wrong," he says.
–THOMAS GOETZ, *Wall Street Journal*

Kingcraft

KING HUSSEIN had a remarkable combination of sometimes contradictory qualities. Dubbed by some critics the Chameleon King, he could be all things to all men, but usually not at the same time. His charm was both real and contrived—as a wonderful send-up running in Amman theatres in the mid-1990s perfectly captured, above all by mimicking the tactical squint he employed. King Hussein, typically, watched and enjoyed that show.

Himself a rock of continuity, he used governments like Kleenex, getting through 56 in 46 years. Yet rotation of office was part of his art, what biographer Roland Dallas calls "strategic generosity": Even those who hatched plots against him could expect a decent embassy if they served their time quietly on the substitutes' bench.

His long, turbulent reign was by any standards a *tour de force* which his son Abdullah will be hoping not to have even to try to emulate.
–ROGER MATTHEWS and
DAVID GARDNER, *Financial Times*

The least pain in our little finger gives us more concern and uneasiness than the destruction of millions of our fellow-beings.
–WILLIAM HAZLITT (1778-1830)

Food for Thought

NONCOOKS think it's silly to invest two hours' work in two minutes' enjoyment; but if cooking is evanescent, well, so is the ballet.
–JULIA CHILD

Vegetable Power

WHAT WOULD the Know Your Customer rule define as a "suspicious" [bank] transaction? Any old thing. Under the regulation, each bank would "determine" the "normal and expected transactions" for each customer.

And who will make the judgment as to your likely criminality? Why, whomever your bank appoints. The next time you are in the midst of an infu ating argument over a mistake in yo checking account with an assista manager who seems to have the I.C of an eggplant, comfort yourself wi the knowledge that this very eggpla may well be responsible for judgi whether your recent dips into your sa ings account merit federal attention.
–MICHAEL KELLY,
The Plain Dealer (Cleveland)

Yanking Our Chains

THE PRESIDENT began 1998 claimi that he would reserve the entire bu get surplus—if a suplus occurred— f "saving Social Security." He didn't.

The President and Congress spe about $20 billion above and beyon the spending caps. They also spe about $9 billion on items "forwar funded" into FY2000. Add in the tr cost of the off-budget IMF fundi ($5 billion) and you get approximat ly $34 billion, or half of the surplus.

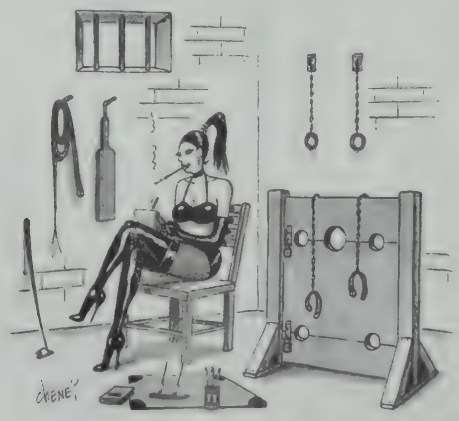
In 1999, the surplus is getting bigg and the tax burden is even higher. T President is again talking about reser ing the surplus to save Social Security- except that now the surpluses are ge ting so big that he needs to save bo Social Security *and* Medicare in order keep Republican tax cuts off the table
–Institute for Policy Innovation

Up to No Good

FOR 50 YEARS we have used taxes steer behavior. Politicians often us the argument that they were promo ing social good through the tax co as window dressing for their real ai getting at the revenue. None of us lik the result. We are responsible for o own fate; let government take what w choose to give it and then retreat.
–AMITY SHLAES, *The Greedy Hand*

Not Too Sweet

A MAN who'd eaten a lot of suga snack food fell out of a tree and sue the snack food company for $10 million in damages.
–Citizens Against Lawsuit Abuse
(Los Angeles) ■



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"Dear Mom and Dad: Just a quick note to thank you for the lovely desk set."

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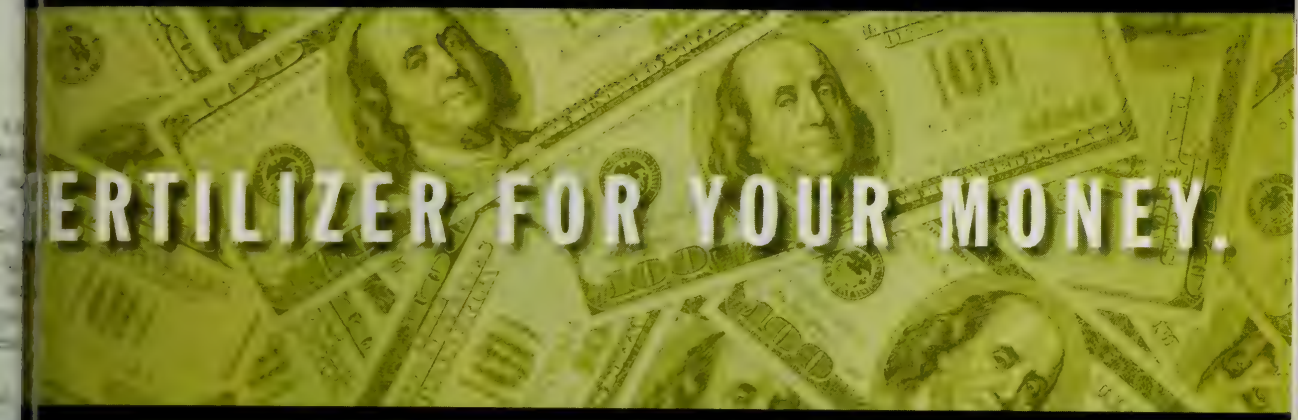

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EQUITY FUND	150.24%	33.85%	32.59%	★ ★ ★ ★ ★ MORNINGSTAR Rating for 3 years among 2,802 domestic equity funds
ALANCED FUND	106.43%	29.30%	24.97%	★ ★ ★ ★ ★ MORNINGSTAR Rating for 3 years among 2,802 domestic equity funds
INDEX FUND	121.54%	28.45%	27.71%	★ ★ ★ ★ ★ MORNINGSTAR Rating for 3 years among 2,802 domestic equity funds
AGGRESSIVE GROWTH FUND	124.20%	84.07%	71.05%	LIPPER'S #5 RANKING of 250 Capital Appreciation Funds for 12 month performance†
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CSCO	CISCO SYSTEMS INC	27	$2,170.13	80.375
GPS	GAP INC	24	$1,137.00	47.375
MRK	MERCK & CO INC	13	$1,892.31	145.5625
PEP	PEPSICO INC	13.4203	$497.39	37.0625
PSFT	PEOPLESOFT INC	15	$255.00	17.00
YUM	TRICON GLOBAL RESTR INC	1	$46.38	46.375
WFM	WHOLE FOODS MARKET INC	12	$562.50	46.875
TOTALS			$6,560.71	

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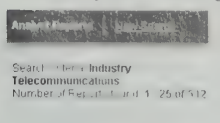
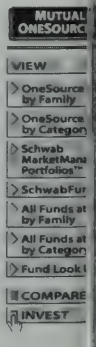
"And we're beginning to look a little more seriously at technology, specifically the internet and wireless categories. So I'm researching them on schwab.com, where I can read the analysts' reports.

"As for my family, we're taking the money from doing these ads and putting it in an index fund. Actually, I'm looking at two, a large-cap and a small-cap. I compared no-load, no transaction fee mutual funds in the schwab.com OneSource area. Based on what I found there, and what I've confirmed from a lot of people, I think it's the right way to go.



"I'm a part-time teacher. Now they've got me teaching investing to my daughter's 5th grade class. It's a level I'm comfortable with." **HOLLY**



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Howard makes a move.

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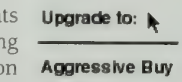
OSCO		1,000		
	HOME DEPOT INC			
			$238,046.04	
			$39,374.64	
TOTALS			$2,438,665.95	

"To be honest, I like to see the market go down a little — it creates terrific opportunities."

"At my age, I won't touch those stocks that jump or fall 30 points in a day — without real earnings. But I did log on to buy a young communication company related to the Internet. I'd researched it on schwab.com's Analyst Center and it shows real earnings. It's rated a strong buy. And the cost was reasonable.

"Today, I bought a multi-national bank stock for my wife's IRA account. I always liked it, and the price came down, temporarily I assume, because of the Brazilian economy.

"On the personal side, we needed a bigger house and saw a great property near the beach. Even with my new 'celebrity' status, the owner wanted confirmation on my financials before he'd take the offer, because a lot of people were interested. I called Schwab's 800 number, it was handled and we got the house. Donna and I celebrated at our favorite restaurant." **HOWARD**



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Commentary

n events at home and abroad

y Caspar W. Weinberger, *Chairman*

MEMORIES OF KING HUSSEIN

ORDAN'S LOSS of King Hussein is a tragedy for his country, r the cause of peace in the Middle East and for the U.S. The success of the king's own small country in one of e most dangerous neighborhoods in the world, his wn survival in the face of taking grave risks and his peronal courage in charting and carrying out bold policies ere all indications of his towering skills and great leadrship. But with all this, King Hussein was a man of sime and unostentatious tastes, one who engendered great ersonal devotion from the people he ruled.

I saw these qualities firsthand many times over the years was privileged to know and work with the king. He was nfailingly kind, modest and ourteous and, in general, enorously supportive of the U.S. in n area where such support was re indeed.

There are several memories that e particularly vivid. I well recall ne late night after long discusons with the king and his senior inisters about some intricate rms sales—and limitations on the se of such weapons that certain embers of our government were eeking to impose. We had adourned without a satisfactory agreement. I was upstairs in n official guest house, writing my daily report, when a uard, looking very startled, came up and said, "The king ants to know if he can meet with you again." I said, "Of ourse. What time would he like me to come tomorrow to ee him?" The guard said, "Sir, he is here now, downstairs."

And so he was. King Hussein had driven over to the uest house in his own jeep, without any security. He aid that he knew I would be reporting on our meetings, nd he wanted to "emphasize two or three points." That as his style and part of his great skill and charm. It was lso a measure of his personal courage, exhibited in the nany times he visited Israel alone, when others in the egion denied that nation's very existence.

On another visit, I mentioned my keen interest in Petra, he great Jordanian architectural site that was "half again as ld as time." I told the king how disappointed I was that ny tight schedule did not permit a visit. The next morning as we all gathered to begin discussions, King Hussein said to me, "Let's go to Petra." He walked rapidly outside and motioned for me to follow as he climbed into the pilot's seat of a military helicopter. He piloted me down to Petra—and was far and away the best tour guide I have ever had.

It was on the way back that the king decided to test the helicopter for some minor fault that had been reported in it. He called over the intercom, "We are going down a bit now." I nodded, and we suddenly dropped vertically from 3,000 or 4,000 feet to what (as far as I was able to observe anything) appeared to be about 6 feet above the ground. Shortly, satisfied that the helicopter was working properly, he climbed to our original height, where my stomach was awaiting my return.

King Hussein (right) and CWW: Reviewing the troops in the 1980s.

Even as we mourn King Hussein, the future, as always, must be uppermost in our minds. King Abdullah comes to the throne at 37, twice the age his father was when he became king. Although he has until now pursued a military career, King Abdullah recognizes the importance of his father's policies and has pledged to support them. And he has already secured the support of his father's friends and international neighbors. The U.S. is rightly taking steps to speed the delivery of $300 million in foreign aid previously pledged to help with Jordan's debt and to keep the dinar stable. King Abdullah should also have the support of one of his father's most vigorous and effective counselors, American-born Queen Noor. She has traveled the world, building support and admiration for her husband and her adopted country.

The new king's role will not be an easy one. There may still be domestic rivalries to neutralize. And some of Jordan's neighbors, outmaneuvered for so long by King Hussein, may feel they now have another chance.

King Abdullah has already demonstrated valor in his military career. He will in the years ahead need the same strength and courage his father exhibited. That will be vital for Jordan and for us, and we should maintain our resolve to help the new king in every way. ■

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Digital rules

Technology and the new economy

By Rich Karlgaard, *Publisher*
publisher@forbes.com

THE UPSIDE OF OPTIMISM

WHAT A GREAT MAN AND ECONOMIST was Julian Simon! The other day I clicked into Amazon.com to see what Simon had written about the long-term trend of commodity prices, the subject that had catapulted him to fame. In 1980 he made a wager with a well-known environmentalist and population control advocate, Stanford professor Paul Ehrlich. Simon claimed commodity prices would drop over time.

What heresy. Recent were the days of gas-line panics and $800-an-ounce gold. A population explosion, such as imagined by Ehrlich and nearly everybody else back then, could only make prices soar. But Simon knew better. In fact, he was so confident of collecting on his bet that he let Ehrlich pick any five commodities he liked—*and* any future date at which the bet would take effect. Ehrlich picked five metals and 1990. Sure enough, the prices dropped, and Simon won. Ehrlich refused Simon's offer of a $100,000 second bet.

Go to Amazon yourself and look up Simon's books—what a treasure trove. You will find some two dozen books written or edited under Simon's name. The shocker is his breadth. He wrote two books on mail-order secrets, and another, *Good Mood*, on conquering depression. From age 30 to 43 Simon himself suffered, daily contemplating suicide. Then came the lightning bolt of inspiration that set his life on a course of optimism and astonishing productivity for the next 22 years. I won't attempt to explain Simon's conversion; you must read it in his own words.

Brains and Souls, Not Mouths

From that point on Simon saw possibilities instead of despair. He saw each new human being as an emergent brain and soul, not merely a mouth to feed. Without leaving his scientific footing, Simon developed a bias for optimism about man, knowledge, science, technological progress and the future. His bias has proven scientifically sound, if not politically correct.

America could use a Simon revival for two reasons. One is the great turn of the millennial clock that is looming, along with the attendant hysterias and fears over the Y2K problem. Quacks are everywhere, promoting the worst possible outcomes. And they're not alone. The howls and hand-wringing over global capitalism and its trapdoors of "hot money," hedge fund hocus-pocus and derivative meltdowns have won headlines for shouters like George Soros. Good old *Atlantic Monthly* regularly dishes up a rat-in-the-punchbowl view of the future. And you could fill a public library with Jeremy Rifkin's lamentations over cloning, biotechnology and Holstein cows that give too much milk. Even Vice President Gore has jumped in. Eyeing our infatuation with cars and suburbs, he has proclaimed America a "dysfunctional" society. Only higher fuel taxes and more grassy berms can save us.

Reason two to consider Simon: self-interest. Optimism works. You'll be a better businessman because of it. Your immune system will rise up. Your endorphins will close sales you didn't think possible. Money and luck will flow to you, as they must, since both seek the highest returns.

Seize the Surprise

The real secret of business today is an ability to spot and seize the "upside surprise." Intel was formed around the business of making memory chips. When cheap Asian chips threatened death in 1985, Intel turned around lickety-split and bet the farm on microprocessors. Every great company has a similar tale. IBM found salvation for its large computers used as Web servers. That couldn't have been predicted in 1990. The Web itself is an upside surprise—unveiled only in 1992—around which fast companies like Amazon, Yahoo and Ebay have mobilized, reaping billions of dollars for investors. Older companies such as 3M became giants by quickly jumping on upside surprises. Its profitable Scotchgard grew from a laboratory accident that spilled slime all over somebody's shoe.

Were Simon alive today, he would say that companies with a bias toward optimism and fun are better bets to seize the upside surprise. Pessimistic companies tend to slog away "solving problems," always with a grim eye on retrieving sunk costs. Meantime, their light-hearted brethren skip and climb to the stars, chasing after those heavenly opportunities.

* * *

Corrections: The computer-skeptic MIT economist referred to in the Feb. 8 column is Robert Solow, not Paul Samuelson. From Feb. 22: Pierre Omidyar owns 38% of Ebay, not 17%.

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to see a world in a grain of sand..."

Edited by Ben Pappas

Swords into plowshares, kind of

BY DOUG DONOVAN

TALK ABOUT YOUR peace dividend. The U.S.S.R. is long gone and Russia is adrift in a sea of economic and political chaos. What better time to pick up some scrap metal, cheap, and build a business out of it?

And so the Peace Missile Corp., a small firm in San Rafael, Calif., is using what was once a top-secret, superlightweight metal alloy—salvaged from the Soviet SS-23 nuclear missile—to make ballistic golf clubs. The Peace Missile 2000 is said to drive the ball 17 yards farther than Callaway Golf's biggest Big Bertha. And in golf, distance counts.

The idea to plunder former weapons of mass destruction came on the links when John Lisanti and Cary Schuman, now coowners, were playing a few rounds. Schuman is a long-ball hitter, having set two world records for distance.

"I said his swing sounds like a rocket taking off," says Lisanti, who had recently helped develop a country club in Moscow. "We started talking about how it would be interesting to turn missiles into golf clubs."

With just about everything up for sale in Russia, it didn't take them too long—a year—to get the scrap metal from the missiles delivered to the U.S. To add to the spirit of détente, Schuman and Lisanti forged their new club out of metal salvaged from scrapped U.S. warheads, too.

Now the company sells two clubs: the Peace Missile 2000 driver ($199) and the Peace Missile putter ($79). An infomercial is in the works; think cruise missiles morphing into golf gear. Says Lisanti: "Once we do that we expect to see these take off." Fore!

You go, Gas Guy

BY CHRISTOPHER PALMERI

AT LAST, freedom of choice has arrived for natural gas customers—but do any of them care?

Some 15 million residents in 15 states can now sidestep the local monopoly and instead choose their gas provider, much as they do in long distance phone service. But so far this liberty has been greeted with a big "ho hum." Fewer than 4% have bothered to make a switch.

The General Accounting Office notes that local providers and utility commissions sometimes fail to educate people about the new options. AGL Resources Inc., parent of Georgia's dominant gas provider, has gone one step better. Enter: the Gas Guy.

AGL's major gas subsidiary, Atlanta Gas Light Co., is losing its monopoly lock on gas sales and becoming a mere distributor that will deliver gas on behalf of 19 rival marketers. One of those rivals is another AGL unit: the newly formed Georgia Natural Gas Services.

To keep customers in the AGL fold, Georgia Natural Gas conceived a new local celebrity, Gas Guy. Far from a buff champion of butane, he's a nerdy bloke in a blue flame costume who shows up in commercials and in personal appearances, like at a recent Super Bowl rally. In November a 40-foot-tall Gas Guy balloon floated in Atlanta's holiday parade.

In November a 40-foot-tall Gas Guy floated in the local holiday parade.

Gas Guy seems to be a hit. The state had expected it would take 18 months for 33% of customers to pick a gas company. Instead, the 33% mark is likely to be hit in only 5 months, thanks to Gas Guy's profile and advertising blitzes from such marketers as Columbia Energy Group of Herndon, Va. and Shell Energy Services Co.

No figures have been released, but the Gas Guy seems likely to have locked up a leading portion of the first round of sign-ups. An early lead is crucial because, under state law, once 33% of customers have picked a provider, everyone else will be assigned randomly among the 19 marketing companies.

Under deregulation, AGL can turn a higher profit than the old monopoly's 11% return on equity cap if it can cut costs below its now-fixed gas distribution rate. A. Clifton Payne Jr., director of marketing for AGL's Georgia Natural Gas, expresses wonderment at Gas Guy's popularity: "This thing is explosive." ■

The Forbes/Bridge Economic Forecast

Edited by Shlomo Z. Reifman

THE U.S. ECONOMY	Actual latest	1998	1999 est mean	1999 est high	1999 est low	4-wk % chg in mean
Automobile sales[1] (mil)	16.1 *jan	16.0a	14.6	15.7	12.0	1.6
Capacity utilization (%)	80.9 dec	80.9a	80.5	82.6	78.0	0.0
New housing starts[2] (thou)	1,616 *p dec	1,616p	1,519	1,624	1,400	2.9
Retail sales[3] ($bil)	2,010 *p jan	2,134e	2,088	2,150	2,038	–6.6
Trade balance[4] ($bil)	–164 *nov	–222e	–264	–174	–333	13.7
Unemployment rate[5] (%)	4.3 jan	4.3a	5.0	5.3	4.0	–0.6
Gross domestic product[6] (%)	5.6 p 4th qtr	3.9p	2.6	3.4	1.5	10.4
INFLATION						
CPI services (unadjusted) (%)	2.6 dec	2.6a	2.6	3.1	2.4	0.0
CPI total (unadjusted) (%)	1.6 dec	1.6a	1.9	2.6	0.9	–5.0
INTEREST RATES						
30-year Treasury yield (%)	5.34	5.09a	5.13	5.90	4.00	–3.8
3-month Treasury yield (%)	4.48	4.48a	4.39	5.20	3.25	–4.8
PRICES						
CRB-Bridge spot indexes	235.67	235.22a	235.00	235.00	235.00	8.3
Gold per troy ounce ($)	288.00	288.10a	273.33	300.00	250.00	–3.0
Oil/bbl W Texas Intermediate ($)	11.75	12.05a	13.52	17.00	9.50	–9.9
CURRENCY						
German marks per dollar	1.73	1.68a	1.69	1.82	1.60	–5.6
Yen per dollar	114	114a	132	155	110	–2.2
Dollars per Euro	1.13	1.17	1.09	1.10	1.08	–8.4

FEDERAL FUNDS WATCH Next Federal Reserve meeting: Mar. 30, 1999

Current rate: 4.75% **Last action:** Nov. 17, 1998 –25 basis points

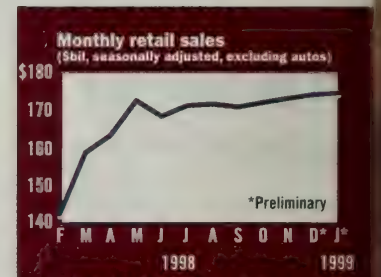
Likelihood of shift in interest rates in the next 90 days by the Federal Reserve

Very likely | Possibility of decrease or increase | Very unlikely

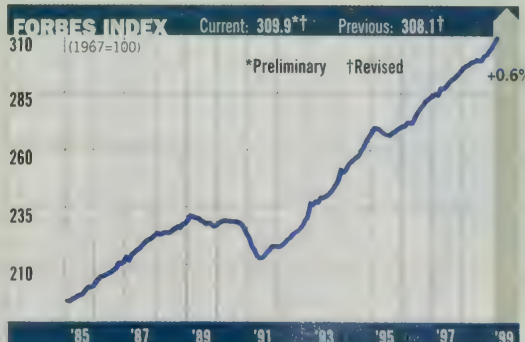
Estimates are contributed by leading economists, who are surveyed biweekly by Bridge Information Systems and Forbes magazine. Consensus forecasts as of 2/10/99.

Anthony Chan, Banc One Investment Advisors chief economist, thinks Brazil's economic woes could cause a significant widening of the U.S. trade deficit. Chan is concerned the slowdown in Brazil will spread to other Latin American countries or even China. Chan points to Thailand, which in 1997 accounted for 1.1% of U.S. exports. Within 12 months of the Asian economic collapse that began in Thailand, the U.S. trade deficit rose by $117 billion. Chan notes that U.S. exports to Brazil are more than twice what they were to Thailand in 1997. He sees our trade deficit going as high as $330 billion in 1999, versus his estimate of $263 billion for 1998. The consensus 1999 forecast of seven survey economists: $264 billion.

SPECIAL FOCUS



For the 12 months ending January, retail sales (excluding autos) totaled a preliminary $2.01 trillion, up 3.3% over the same period last year. For all of 1999, Forbes/Bridge economists expect retail sales to rise 5.3%, to $2.1 trillion.



Current	Previous	Change
$1,308.4	$1,301.1	0.6%

The Forbes Index is a measure of U.S. economic activity composed of eight equally weighted elements: the cost of services relative to all consumer prices, the level of new orders for durable goods compared with manufacturers' inventories, total industrial production, new housing starts, personal income, new claims for unemployment compensation, total retail sales and total consumer installment credit.

Our Web site, www.forbes.com, has daily updates on economic estimates and detailed information on Forbes Index components.

*Twelve months a actual e estimate p preliminary [illegible] light and heavy trucks, including imports [illegible] Total single and multiple family, unadjusted [illegible] Excluding auto sales, annualized and seasonally adjusted [illegible] Total goods and services, annualized and seasonally adjusted [illegible] Percent of civilian labor force [illegible] Quarter-to-quarter percent change, annualized. *Source: Bridge Information Systems Inc*

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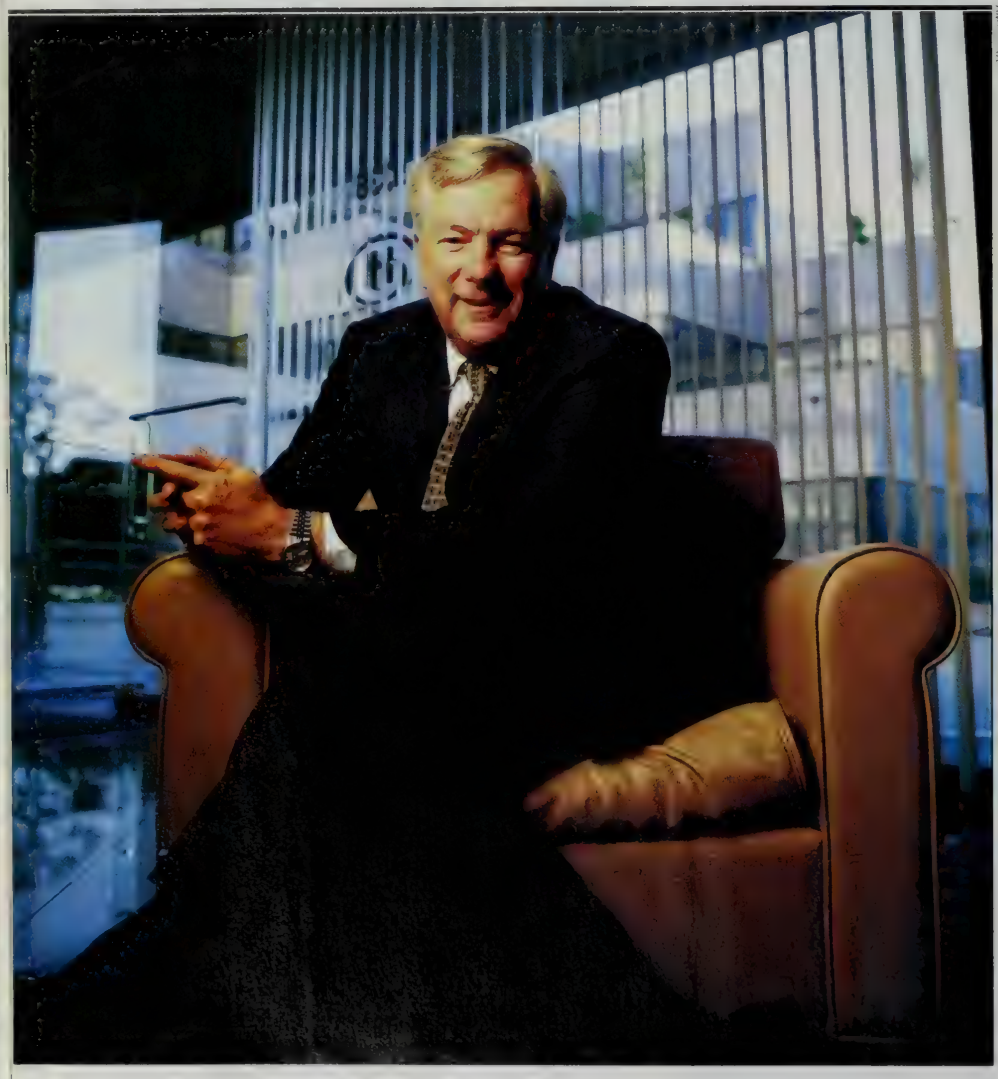
COMPANIES While the rest of the lodging industry retrenches, Hilton's Stephen Bollenbach smells opportunity. He may be one of the few who can take advantage of it.

Full house

By Seth Lubove



Let's make a deal: Hilton's stock is slumpin but a $1.8 billion credit line means Bollenbach can still shop around.

STEPHEN BOLLENBACH'S TENURE as chief executive officer of Hilton Hotels Corp. hasn't yet enhanced his reputation as a master dealmaker. It was Bollenbach, 56, who in a previous life engineered Walt Disney Corp.'s stunning $19 billion takeover of Capital Cities/ABC, among other feats. His $3 billion takeover of Bally Entertainment, soon after arriving at Hilton in 1996, seemed perfectly in character. Then he lost a bruising battle for ITT Corp. to Starwood Hotels & Resorts, saw potential mergers with Circus Circ and Promus Hotel Corp. fizzle, an most recently was in a fierce batt with a group led by Leon Black Apollo Real Estate Advisors to bu almost $1 billion of hotels fro shaky Patriot American Hospitality

The Apollo group countered with n offer to inject up to $1 billion into atriot American in exchange for the quivalent of something over 40% of ne company and six of the 15 board eats. Apollo was the front-runner as f FORBES' deadline—more evidence hat the deals aren't coming as easily or Bollenbach as before, despite hat has been the biggest period ever or hotel mergers and acquisitions.

All the while, Hilton's stock has llen alongside the rest of the indus-y's. Even Bollenbach's announce-ent last June that he would spin off Hilton's lower-margin gambling usiness, Park Place Entertainment, arely goosed the stock. Hilton hareholders have lived with an aver-ge annual return on equity of 9.7% nce Bollenbach's hiring, below the verage for lodging and gambling ocks tracked by Value Line. Hilton's ock fell 36% last year.

Still, the recent price of the stock as less to do with Bollenbach than ith the state of the hotel business. s cyclical as ever, the industry is ow lurching into a down period. Whether a general recession is immi-ent or not, there's clearly a glut of otels, and occupancy rates will prob-bly continue to slip from their 1996 igh of more than 66% to around 4% this year, according to Salomon mith Barney's lodging analyst Michael Rietbrock. Industrywide, er-room revenue increases are xpected to barely match inflation for t least two years, though Hilton's igher-end segment should do better.

But don't expect Bollenbach to be hastened by his diminished reputation. Relaxed and all smiles in his office overlooking the mansions of Beverly Hills, Calif., the soft-spoken Bollenbach insists that the deals that went nowhere were blessings in disguise. When high-flying real estate investment trusts were eagerly—foolishly, he implies—bidding up prices, Bollenbach sat on his money. In 1997, he tried out the mattresses at 40 properties but bought only one, the Anchorage Hilton, for $67 million. Last year he bought eight for a total of $950 million, expanding his room count by 9%.

So while Patriot American is appealing to the tender mercies of Leon Black for a rescue, Bollenbach can tap into a revolving credit line of $1.75 billion available at about 6% interest.

"So now we find ourselves where we have plenty of money," contends Bollenbach. "If Patriot had money, they'd be out there competing with us." With the gambling business jettisoned, Bollenbach expects his borrowing costs to fall even further since many lenders demand a premium from casino companies.

There does seem to be a new kind of Bollenbach emerging, a connoisseur rather than a glutton. With the exception of the Patriot portfolio, he seems willing to patiently pluck up individual hotels, and only at prices reflecting the slowdown. In December he paid an undisclosed Japanese owner $82.5 million for the former Sheraton Grande Torrey Pines in La Jolla, Calif., a price that works out to 7.5 times expected 1999 cash flow (earnings before depreciation, interest and taxes).

Here's a curious development. It seems that Starwood, which paid 14 times cash flow for ITT and its Sheraton chain in early 1998, could have bought the Torrey Pines property for not much more than Hilton's 7.5 multiple. Starwood held an option that entitled it to top any other bidder by 5%. It let the option lapse.

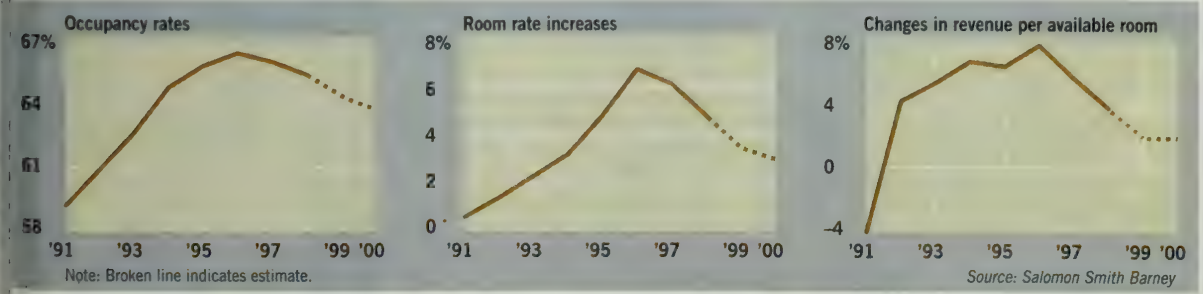
Bollenbach can't resist a tweak. "The reality is there is no capital available to most other players now," he says. "It therefore must be a good time to sell. So they ought to give us a call."

What he wants: big, established hotels in urban areas or resort areas where there are high barriers to entry. While Hilton currently owns, manages or franchises 260 hotels, it earned 80% of last year's room revenue—and 60% of profits—from 10 big-city hotels like the Waldorf-Astoria in New York and the Palmer House Hilton in Chicago. These are old-line trophy properties. Contrast what some hotel companies are all about, he sneers: "Just a collection of newer brands slapped together by accountants and lawyers."

If Bollenbach seems to be quietly busying himself with day-to-day hotel operations and the occasional purchase, don't be fooled. This guy has a dealmaker's mentality, and he's itching to make a memorable deal with what real estate people call a motivated seller. In the words of one of his flacks: "Bill Marriott is a hotelier. Conrad Hilton was a hotelier. Steve is no hotelier, but he knows how to run a hotel company." ■

More room at the inn

An overbuilt hotel market is depressing occupancy rates and room revenues industrywide. Time to buy, Bollenbach contends.



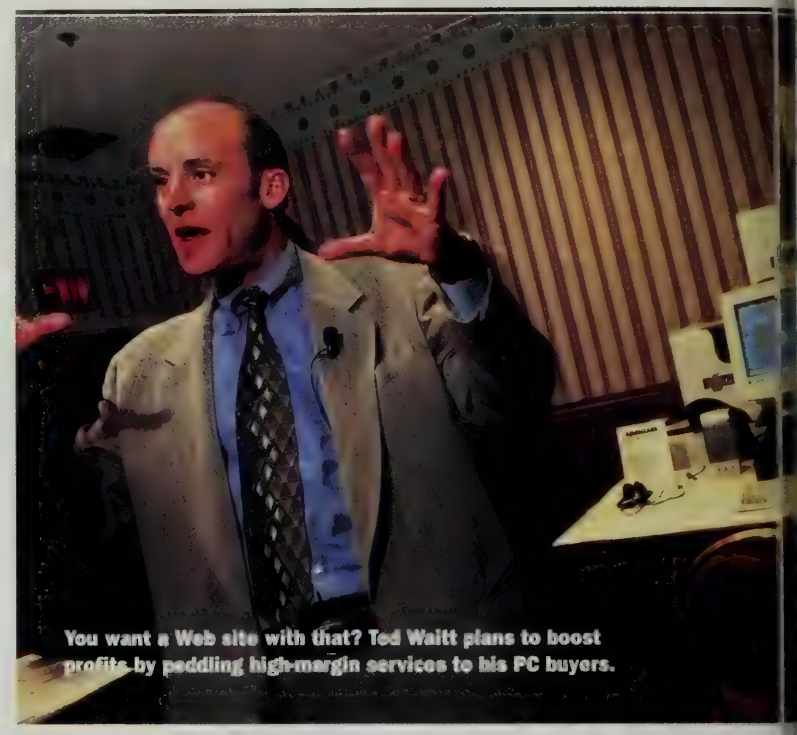
Note: Broken line indicates estimate.

Source: Salomon Smith Barney

TECHNOLOGY The company that gave us cow-print PCs has a new mantra: services.

Gateway 2005

By Elizabeth Corcoran



You want a Web site with that? Ted Waitt plans to boost profits by peddling high-margin services to his PC buyers.

THEODORE W. WAITT HAS LONG relished the role of high-tech maverick. When the rest of the PC industry took itself so seriously, the ponytailed Waitt put cow spots on his boxes. That was a whimsical allusion to the fact that his Gateway (originally named Gateway 2000) was nowhere near any high-tech haven. It was based amid cow pastures in North Sioux City, S.D.

Just like Michael Dell's startup in Texas, Waitt's Gateway assembled PCs from commodity parts, bypassing the industry's powerful distributors to ship directly to customers. Waitt confounded the skeptics, racking up a tidy $7.5 billion in sales last year.

Now Waitt has a vision of what a PC maker, circa 2005, will look like—and it calls for a daredevil move into high-margin services that look a lot more promising than the cutthroat PC assembly game. The PC "box" will be nothing more than the conversation starter with his customers, a way to get their attention. Waitt's big hopes center on what he can offer once they've taken that first step of getting a Gateway PC.

Gateway will make its profits by offering a smorgasbord of services—Internet access and personalized Web services, training, support and software, even financing. "Three years from now, the majority of our revenue will still come from selling hardware products, but the majority of our earnings will come from service-based systems," Waitt predicts.

The newest nugget in Waitt's plan is a partnership unveiled a few weeks ago with Internet portal Yahoo. It will offer personalized home pages, a hybrid Gateway-Yahoo creation, to PC buyers who sign up for another Gateway service—Internet access.

The PC maker already asks buyers detailed questions about everything from their children to hobbies. So building tailored home pages should be a snap, Waitt believes. Another handy benefit: Yahoo will pay Gateway a bounty for every pair of eyes that sticks with the site.

The shifting to services comes none too soon. In the past two years, fierce price competition has made PC profit margins as fragile as filo pastry. Last year, after record sales of 3.5 million PCs, Gateway managed an aftertax margin of 4.6%.

Two new radical schemes won't help. In January Onsale, Inc. began selling PCs and other gizmos essentially at cost. A few weeks later, tiny Free-PC, Inc. launched a whole new price category: free. Free-PC promises to hand out at least 10,000 Compaq Presarios to people who submit personal data and agree to receive direct, targeted advertising. During its first seven days, Free-PC received over a million applications.

So on to services. Gateway began its march in November 1997 by offering customers Internet access through its own service at gateway.net. Clever idea, but the se vice was plagued with so many pro lems that Gateway stopped promo ing it. Now, with a new Intern partner and a starting point 200,000 Net customers, Waitt vo to push it harder.

Last May, Gateway moved in another promising service: financin Much as General Electric rakes handsome profits from financi leases, Gateway originated $1 billi in financing last year to help co sumers pay for their new PCs. T "Your:)Ware" program lets co sumers pay a monthly fee for their P and get a trade-in value for o machines after two years.

Waitt is out in front of what m be a big movement of the PC busin toward the pricing system seen in c lular telephones and satellite TVs: Y make your money from a month contract, not from a one-time sale.

"Everyone will move in that [se vices] direction," says Roger Kay International Data Corp. in Framin ham, Mass. Gateway's task, he ad is to take some "mindshare" befo rivals try to muscle in.

Its recent financial performance h bought Gateway some breathi

om. After a disastrous loss of $107 illion in the September 1997 quar- r, due largely to misjudged emand, Gateway has rebounded. It osed 1998 with $346 million 2.18 per share) in profit, up almost threefold from 1997. Its count of PCs sold in the U.S. grew 38% last year, says Dataquest, second only to Dell's staggering 61% rise in shipments. And it has a fresh management team: Ten of the company's top 15 executives have joined in the past year.

If anyone can get a PC company to do the services jig, it's Waitt, says analyst Kay. Not only does Waitt have midwestern charisma and a vision—he still owns 44% of the stock. ■

COMPANIES Nothing can compound at 50% a year forev-, not even mighty Dell.

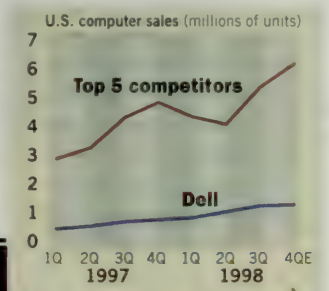
Growing pains

y Daniel Fisher

ELL COMPUTER CORP. turned in nother stellar performance in its Jan. 9 quarter, with worldwide revenue sing 38% from the previous year, to 5.2 billion. But ot stellar enough. nticipating the sults, investors arked down the alue of the compa- y on Feb. 12 by 2%, to a mere 123 billion. They re used to better umbers than that. uring this decade ell has been com- ounding its revenue at a 55% annual rate. A mere 38% growth would suggest a turning point. The great growth engine may be losing steam.

Does not compute

Michael Dell watched his company's growth rate slow last quarter as Christmas sales of cheaper PCs boomed.



E: estimate. Source: International Data Corp.

MARTIN SIMON/SABA

It was a good ride while it lasted. Dell's stock is up 17,000% from a little over eight years ago. The shares are now going for 60 times the $1.47 consensus estimate for earnings in the year ending Jan. 1999.

But good rides do not last forever. Look behind the numbers: In the fourth quarter of calendar 1998, Dell's sequential growth, or the percentage increase in unit sales from the third quarter, was 12.6%, according to market-research firm International Data Corp. That's well below the industry's 23% sequential gain and the 30% increase IDC lists for Compaq Computer.

Sequential growth in the U.S. market, meanwhile, was a very un-Dell-like 2.6%. That laggard performance in a market accounting for 60% of Dell's sales led the Round Rock, Tex. company's worldwide market share to decline for the first time in years, to 8.3% from 9.1%. Only strong growth outside the U.S. salvaged the quarter.

Dell fans pooh-pooh the IDC numbers, saying Compaq and other personal computer makers benefited from strong Christmas sales of sub-$1,000 PCs, a market Dell eschews. Nobody looks at sequential numbers anyway, they argue; it's the year-over-year gains that matter.

Fair enough—as long as Dell can keep selling higher-priced boxes. And the signs there are troubling. Dell's sales of servers, for example, the

Win big, lose big

DELL COMPUTER'S SPECTACULAR RISE from a split-adjusted $8 a share to $88 in the past two years has made more than a few millionaires, or "Dellionaires," as they're sometimes called. Besides founder Michael Dell, whose 14% stake is worth $16.7 billion, it's hard to say just how many Dellionaires there are. But one of the biggest is La Jolla, Calif. stockbroker William B. Michaels.

Michaels, 67, says he turned a $2.75 million stake into $49 million worth of Dell stock over the past two years by using options, leverage and a lot of guts.

"If you want to arrest me for portfolio concentration, come and get me," says the Oklahoma native, an unrepentant practitioner of the win-big, lose-big school of investing. Michaels and his wife control some 550,000 Dell shares purchased with a staggering $20 million in margin debt.

Michaels admits the bet looks foolhardy to some. Even brokerage executives have tried to talk him into selling. But like a lot of Dell fanatics, Michaels believes the PC maker has only begun to grow and will increase sales 45% to $26 billion this year.

"You don't look at price/earnings multiples," he says. "You look at what the future income stream is going to be. Then you take everything you've got, leverage it up your you-know-what, mortgage your dog, your wife, your house, put it all in Dell stock and sit down and relax."

Relax? –D.F. ■

building blocks of corporate computer networks, rose just 9% between the September and December 1998 quarters, compared with 32% sequential growth for the industry as a whole. Not many servers end up under Christmas trees.

Dell has some room to grow in the market it has targeted, feature-rich PCs sold to business customers and sophisticated consumers. Dell's average selling price in its third fiscal quarter was $2,400, several hundred dollars above the industry average. But even business customers are waking up to the fact that $1,000 buys a lot of PC these days.

So far Dell has scored with a direct sales formula that both cuts out dealer markups and enables Dell to turn its inventory four times faster than Compaq. Inventory hurts not just because it has to be financed, but because it erodes in value as component prices decline.

Ashok Kumar, an analyst at Piper Jaffray Inc., still says Dell is a buy, but he doesn't say it with the same enthusiasm he used to. At abo three times the price/earnings rat of Compaq or IBM, Kumar says, D stock is vulnerable. If the P/E fell 30 times forward earnings—Dell multiple of just 16 months ago—th price would drop 50%, to $44.

"Portfolio managers are in quandary—if they take their mon out of Dell, where the hell do th put it?" Kumar muses. "But as soo as a Fidelity Investments decides th the growth is slowing and starts sell, watch out." ■

INVESTING

Iacocca's crash course in retirement investing

As RESCUER OF Chrysler Corp., Lee Iacocca presided over one of the great success stories of the 1980s. As a retiree since 1993, Iacocca has been involved in rather less fortunate business endeavors, an assortment of which are displayed here. The recently plucked Koo Koo Roo Inc., a faddish fast-food chicken chain in California, was only the latest to suffer after Iacocca's involvement. From scuttled in-flight entertainment schemes to his much-publicized—and as yet unrealized—electric bike ambitions, Iacocca in retirement has yet to show the stuff that made him a business icon.

–SETH LUBOVE and ANNE LINSMAYER ■

Company Iacocca's job	Type of business	Early hype	Money sunk	Status of business
Koo Koo Roo Inc. chairman	Moneylosing flame-broiled chicken chain	"Lee Iacocca is a national treasure," company says.	Helps raise $14 million; owns 309,000 shares plus options	Delisted from Nasdaq and taken over by Leon Black group.
EV Global Motors founder	Electric-bicycle promoter	Promises to "lead the electric revolution."	Reportedly invests $600,000 and raises $6.2 million	Promised in 1997 to begin sales last June. Nothing yet.
Unique Mobility Inc. director	Unprofitable electric motor maker	"Iacocca's expertise . . . will jumpstart our growth."	Spent $3.2 million for 12% stake through EV Global	Iacocca buys stock at over 6; recently trades at 5
Energy Conversion Devices senior adviser	Robert Stempel-led, loss-riddled battery maker	Iacocca: "Our new partner has impressive credentials."	Owns 281,000 shares and warrants	Shareholder return of negative 40% since Iacocca's arrival.
Full House Resorts Inc. director	Smallish Indian-casino operator	His "business expertise is internationally recognized."	A 10% stake, or over 1 million shares	Stock at around 6 when Iacocca buys; now in 2's.
Branson Hills Associates investor	Bungled Branson, Mo. real estate/casino project	Includes Iacocca's stake in "Will Rogers Follies" musical	Property appraised in 1994 at $3.1 million	Iacocca and others sued over stillborn project.
Iacocca Capital Group founder	Merchant bank with plans for in-flight entertainment	Iacocca: "an extraordinary opportunity."	Undisclosed	In-flight schemes fizzle after equipment never materializes.
Empire Casino & Resort investor, pitchman	Private Indiana riverboat project in 1994	Iacocca reportedly provides "substance" for Wall Street.	Company told local paper Iacocca to invest "millions"	Iacocca group lost gambling license to another bidder.
Bay Meadows project investor	Proposed $400 million San Mateo, Calif. project	"One of the Bay Area's biggest . . . development deals"	Iacocca group was to pay $31 million for 41 acres	Iacocca group issued one press release, then nothing.
Spacehab Inc. director	Commercial space technology firm	Iacocca: "excited . . . with such a promising venture."	Undisclosed	Iacocca quit within one year of his 1993 appointment.

EDIA NBC got very good for a while. Then it got boring and arted losing viewers. Who's going to stop the slide?

Must-fix TV

y Robert La Franco

ENERAL ELECTRIC boss Jack Welch n't be too happy with NBC these ays. For four years his broadcast ision has been tops in the business, inning in overall viewers, prized emographics and upfront ad sales. trutting its stuff, the network amelessly promoted itself as "Must-ee TV"—and it was. Until this year.

Today the wheels are rattling off. BC's prime-time viewership has llen 17% from a year ago, while iewers aged 18 to 49—the group oveted most by advertisers—have ropped by a staggering 24% when ou count the boost last year from e World Series and Super Bowl on BC; even excluding it, that group is own 18%.

Yes, NBC is probably still very prof-able—Nicholas Heymann of Pruden-al Securities estimates that the net-ork will earn $505 million this year, lus profits from the 13 stations NBC wns. But network profits were off 5% last year and will likely fall again.

The only other network to lose 18-o-49 viewers this year is ABC, down nly 4%. Fox is fast on NBC's heels, ying it in 18-to-49-year-olds for the irst time last month, thanks to the uper Bowl.

Heads have rolled. NBC Enter-ainment President Warren Little-ield resigned in October. His boss, Vest Coast President Donald Ohlmeyer, leaves at year's end. In heir stead is Turner cable veteran cott Sassa. In recent weeks NBC een in talks to hire a number two o head entertainment.

The leading suspect: Garth Ancier, 1. He started his career at NBC and elped put the Fox network on the nap. He just left Time Warner's ascent WB network after making it a ot property with raging-hormone hows for teenagers (*Dawson's Creek*, *Felicity*, *Buffy the Vampire Slayer*).

Ancier's greatest asset may be his bility to schmooze Hollywood's fickle creative community—a prickly bunch that so resented NBC's heavy-handed ways that at one point last year producers boycotted the network. Ancier and *Ally McBeal* creator

AP/WIDE WORLD

David E. Kelley were pals in the same eating club at Princeton, and he is a masterful ego-stroker, calling his producers to rave after a good show airs.

LISA RUBIE/GLOBE

Two questions that will be on the table as NBC gets serious about hiring Ancier: Can he pick programs for full-fledged grown-ups? And can NBC afford him? He has a 2% stake in WB now worth perhaps $20 million.

Some of NBC's slide couldn't be helped. Losing *Seinfeld* and passing on the costly contract for the NFL hurt ratings. But many of NBC's problems go deeper than that—and are of its own making.

Two years ago, emboldened by a seemingly unbeatable lineup, NBC chief programmer Littlefield flooded the weekly schedule with 2 extra hours of 30-minute sitcoms. He also began tossing shows around like lettuce, rearranging the prime-time lineup. "It became like moving the tuna fish around in a supermarket so every time customers come they have to look in a different place," says *Mad About You* cocreator Danny Jacobson.

Rather than seek fresh series from new voices, however, Littlefield handed over lucrative time slots as rewards to the producers of existing hits. It boosted the output at NBC Studios in the hope that, if those series stuck, NBC would reap a fortune in rerun sales.

ER producer Warner Bros. brought forth *Built to Last*—which didn't—and *Trinity* (axed). *Seinfeld* producer Castle Rock sold NBC on *The Single Guy*, now dead, while Paramount (*Frasier*) offered up *Encore! Encore!* and *Jenny*. She's long gone, and *Encore!* didn't stick around for a curtain call.

NBC Studios, which has spent an estimated $50 million in three years to create new shows, fared worse. *Union Square* and *Conrad Bloom* both flopped, as did *The Tony Danza Show*, in which NBC had a small stake. Of the two dozen shows NBC has in development for next fall, half are from the in-house unit—double the portion of a year ago.

Within a year NBC retreated to its normal 14 hours of comedy. It filled the empty time slots with extra airings of the *Dateline* news maga-

Plucked Peacock

Hoping to bolster the rest of its schedule, NBC reshuffled time slots for seven strong shows this year and got shot down.

Show	*Just Shoot Me*	*Mad About You*	*Caroline in the City*	*3rd Rock from the Sun*	*Working*	*Dateline*	*Frasier*
1999 viewers ages 18–49	7.8 mil	5.4 mil	5.7 mil	4.9 mil	5.8 mil	5.4 mil	4.2 mil
	▼ 19	▼ 36	▼ 26	▼ 34	▼ 16	▼ 23	▲ +31

zine—even though news shows lure the older viewers less desired by sponsors.

The extra *Datelines* also took up slots where new dramas might have been tried. And even *Dateline*, put in as a cheap alternative, is down 23% in viewership from last year.

As the schedule floundered, existing hits like *Mad About You*, *Just Shoot Me* and *3rd Rock from the Sun* were altered or moved. Not good. This season *Mad About You* has lost 36% of viewers 18 to 49; *Just Shoot Me* is down 19%; and *3rd Rock* is off 34%. Adding to the pain: NBC passed on *Dharma & Greg*, which became a hit for ABC.

Each mistake was magnified by NBC's cocky self-promotion. Says Jacobson, "Then to label it all 'Mu See TV'? I'm sorry, but there's such thing as a 'Must-S *Single Guy*."

For GE, the worrisome prospec that NBC's ratings may get wo before they get better. Once view get turned off by bad shows, they d away from the good ones, too. In t TV biz, failure feeds on itself.

MARKETING Greasy infomercials help Salton sell more stuff.

Ooh! Aah!

By Erika Brown

IT'S THREE O'CLOCK in the morning. Plagued with insomnia, you grab the remote and flip around until a grinning blonde in an apron catches your attention: "I'm going to show you something you won't believe! Juicy meals in minutes! Something else you won't believe . . . George Foreman!"

The studio roars, and boxing's elder statesman, in a red apron, shows off his Lean Mean Fat-Reducing Grilling Machine and highlights the grease caught in the pan below. "Eew!" the audience screams. It can be yours for three easy payments of $19.95 (plus shipping and handling).

Don't laugh. Foreman and Salton, Inc., in a 50/50 partnership, have notched $200 million in sales of Foreman grills in less than four years. Now Salton is going big time: The Nasdaq company is switching to the New York Stock Exchange. On Feb. 26 Foreman and Chief Executive Leonhard Driemann are slated to ring the bell on the Big Board to mark the event.

But wait—there's more! In a one-hit-wonder business, Salton runs four more infomercials, including t Breadman and the Juiceman. Rath than rely on just TV sales, Salton v one of the first to sell its tacky ga gets in Kmart, Sears and the lil Infomercial products contributed h of its $306 million in 1998 revenu

The rest? A few hundred applian —waffle irons, Marilyn Monroe h dryers and peanut-butter makers. five years Salton's sales have increas sixfold. The company's gross pro margin is 37% overall, but it do 43% on the infomercial lines.

Salton had sold hot plates for years and was a unit of Sevko wh Driemann started in 1987. A year la he led a buyout with all of $2.5 millio mostly from venture capital. Soon aft Sevko went bust. Windmere, a mak of irons, coffeemakers and hair drye held a 50% stake in Salton beginning 1996. A master of good timing, Dr mann bought it back just prior Windmere's near collapse in Octob He paid $12 a share ($67 million cash) and $15 million in an IOU. T shares trade at a recent $30.

But can Salton stay champ wh the Foreman grill fades? It recen acquired Toastmaster, with sales $1[illegible] million. And five new infom cials are due this year, including mask that exercises your face hawked by *Dynasty*'s Linda Evans.

Stay tuned. . . .

A one-two punch: George Foreman and Salton have sold $200 million in grills.

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Carpets up, camping down—the economy in flux.

Creation and destruction

By Peter Brimelow

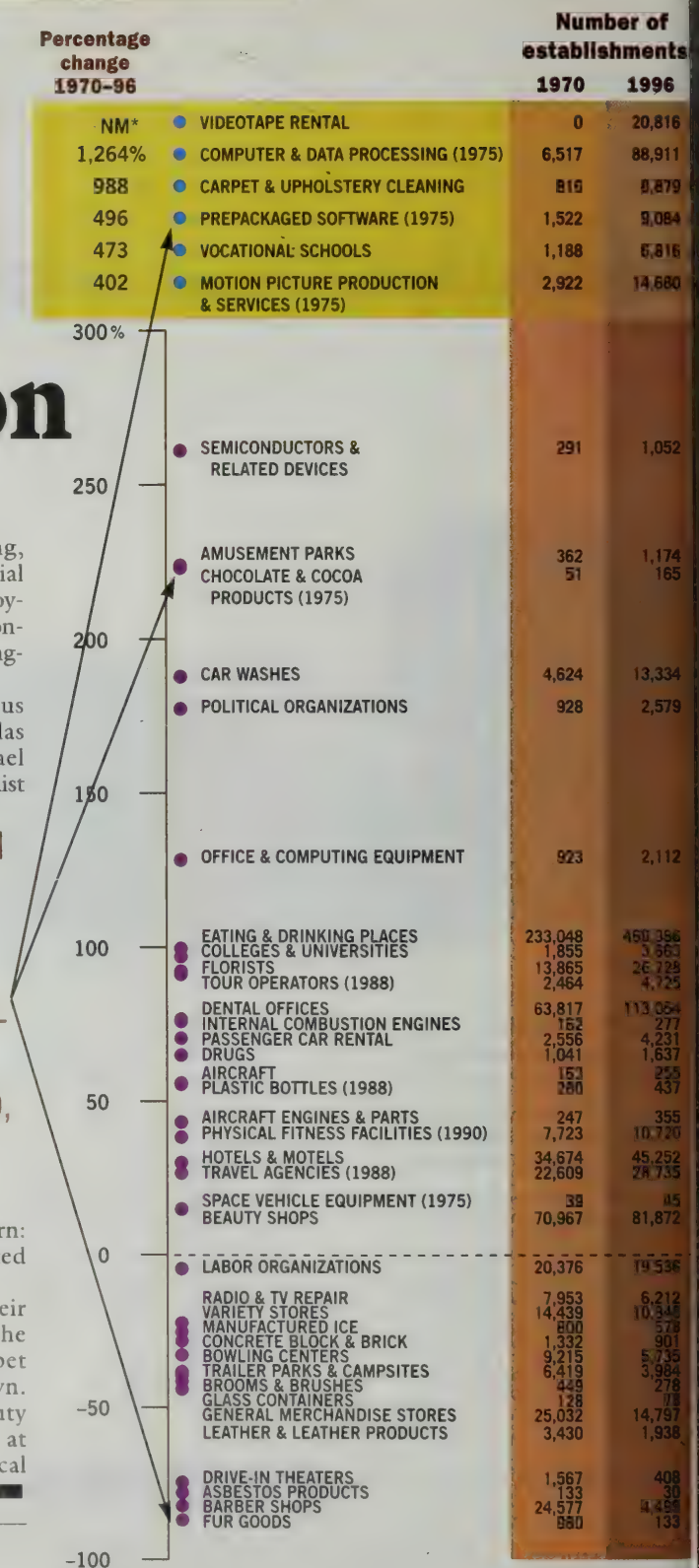
REMEMBER DOWNSIZING? There's also upsizing, as we pointed out during the last presidential primaries (FORBES, *May 6, 1996*). Overall employment was increasing, even though the occupational categories in which Americans work were changing at a bewildering rate.

This alarming if ultimately advantageous process has been called "the churn" by Dallas Federal Reserve Chief Economist W. Michael Cox. Cox's conclusion, citing Austrian economist Joseph Schumpeter's insight that entrepreneurial innovation continually destabilizes the economy: "Job creation and job destruction are intertwined."

Tremendous turmoil in economic activity, driven by such factors as technology (software), affluence (amusement parks), fashion (fur).

In his fascinating *Myths of Rich & Poor: Why We're Better Off Than We Think* (coauthored by Richard Alm; Basic Books, 1999), Cox offers another measure of the churn: shifts in the number of establishments devoted to different economic activities.

People can now afford to outsource their domestic drudgery, Cox suggests, noting the increases in eating places and, oddly, carpet cleaning. Hotels are up, campsites down. Male-only barbershops yield to unisex beauty salons. But even Cox's optimism falters at the spectacular upsurge (178%) of political organizations. ■



*NM: Not meaningful. †Defined by the U.S. Census Bureau as discrete location at which an economic activity is carried out.

Source: Myths of Rich & Poor *by W. Michael Cox and Richard Alm*

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You have to be a little suspicious when you hear utility execs say they welcome deregulation. But maybe the ones at CMS Energy are sincere.

Bring on the competition

By Carleen Hawn

TRANSFORMING A TROUBLED regional gas and electric utility into a profitable $5 billion (1998 sales) international power company would be feat enough to satisfy the ambitions of most chief executives. Not so CMS Energy Corp.'s William McCormick.

"We want to be a growth company," he says of his Dearborn, Mich.-based utility. A growth company? This is the outfit that nearly sank into bankruptcy in 1986 from cost overruns on a nuclear power plant.

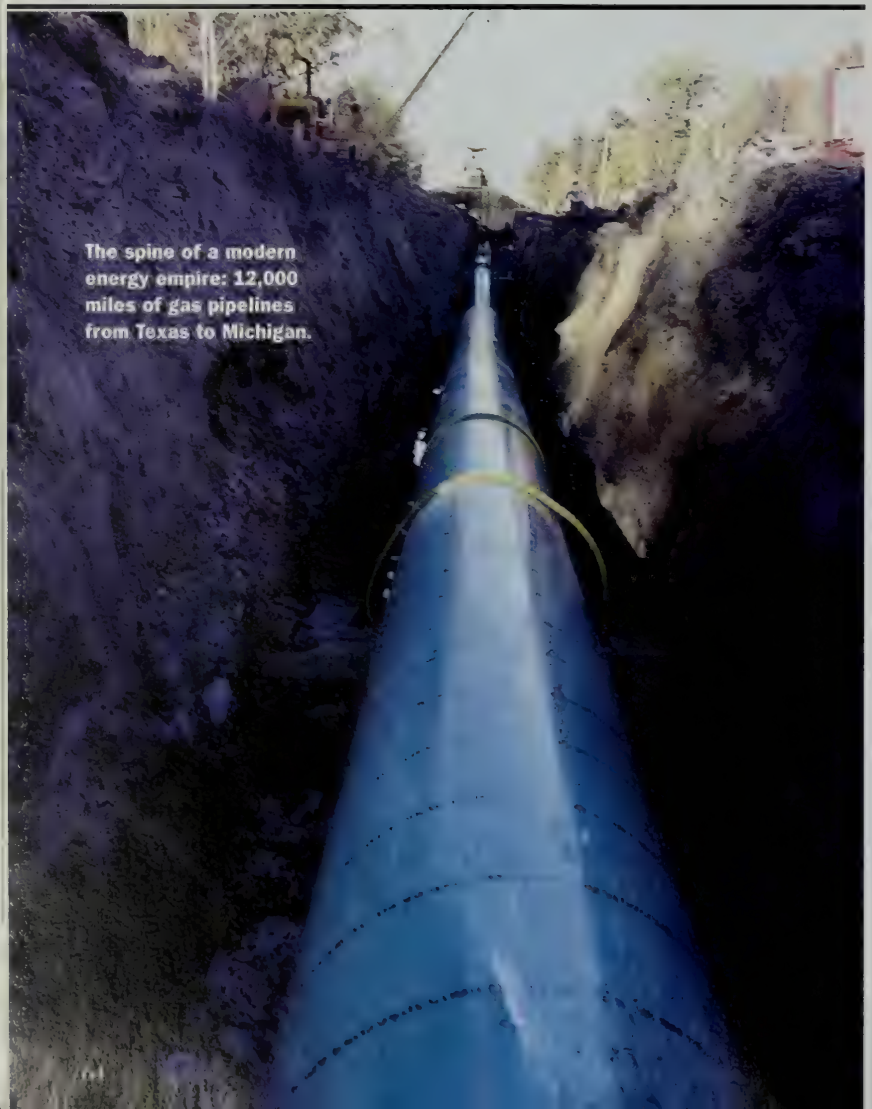
And now deregulation is coming—at a time when CMS still generates 70% of its profits from the staid business of selling regulated power to 6 million Michigan residents.

CMS has, like just about all electric utilities, so-called stranded costs, long-term obligations to buy power at s rates that will be hard to recover in deregulated world. Morgan Stanl Dean Witter's Kit Konolige figur CMS has about $7 billion in uncompe itive (regulated) assets out of a tot asset base of $11 billion. CMS may n succeed in fully recovering strande costs by assessing fees on existing departing customers.

McCormick, a nuclear engineer t training who has spent 14 years at CM has this answer: Deregulation will hur but it will hurt the other guy mor The Midwest is full of coal plants th are costly to operate because the exhaust has to be scrubbed of sulfu McCormick plans to invade the terr tory with spanking new, clean-burnin gas-fired plants. Some of the electric ty to be generated in these new plan will be sold to industrial custome (some of which now generate the own electricity), but the rest will b sold to other utilities that will b forced in a deregulated world to bu from the cheapest possible source.

It helps that CMS is already in the g business, both as a local distributor an as an oil and gas producer. It is goin to get deeper into gas. Last Novemb CMS announced it would pay $2.2 bi lion for the Panhandle Eastern Pipelin and Trunkline Gas companies of Cha lotte, N.C.-based Duke Energy. Th acquisition will give CMS 12,000 mil of natural gas pipelines stretching fro Texas to Michigan. The pipelin increase CMS' working gas storag capacity by 54% to 200 billion cub feet, the second-largest capacity in th midcontinent region, behind America Natural Resources. Such reserves a an asset during the winter, when util ties need extra gas. And, of course, th pipeline will supply fuel to CMS' ne power plants.

"Our business will be 50% regulate and 50% nonregulated in four years, predicts McCormick, 54. If he can g



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David and a few Goliaths

Company	1998 revenue ($bil)	Market cap ($bil)	P/E	Debt to capitalization	ROC
CMS Corp	$5	$4	13	65%	6.3%
Duke Energy	17	22	17	43	9.5
Edison Intl	10	9	14	59	7.0
Enron Corp	31	21	27	41	6.5
PG&E Corp	20	12	15	53	9.0
Southern Co	11	18	14	46	7.5

Sources: Value Line, Standard & Poor's, company financials.

With a heftier debt load, fewer sales and a smaller market capitalization, CMS can't wait for deregulation to be able to outshine its peers.

there, he just might be able to deliver on his goal of 10% to 12% in annual earnings-per-share growth. With his present collection of assets, such growth would be difficult or impossible to achieve. Indeed, over the past five years the EPS has grown at an 8% annual rate, to $2.46 last year, excluding nonrecurring gains.

Some growth is supposed to come from overseas. CMS has $3 billion invested overseas in 34 independent power plants, pipelines and energy producers in 21 countries, including the United Arab Emirates, Brazil, Argentina and Morocco. Last December CMS and four partners trumped Enron to win the contract for a coveted $1.6 billion, 1,886-megawatt gas-fired power plant in Tamil Nadu, India.

Back home CMS just won a half-billion-dollar contract to build a 710-megawatt gas-fired plant that wi supply electricity and steam to For Motor Co. and Rouge Steel i Detroit—the same facility at which a existing coal-fired power plant explod ed last month. Power plants like th are exactly what McCormick plans t erect along CMS' new pipeline.

CMS has budgeted another $1.5 bi lion for capital expenditures in 199 60% will be spent on power plants an utilities overseas, the rest in the U.S. A this will further weigh down CMS' ba ance sheet, which already has a hefi $4.2 billion in long-term debt. CM ratio of debt to total capital is 65%, a average of 17 points higher than seve al peers *(see table)*. Its pretax, pre-inte est earnings cover its interest bill ju over two times, a tight margin for erro

McCormick says his company ca handle the financial leverage. "If ther is a risk," he says, "it's an executio risk." That's right. In a deregulate world, if you build a plant that cus tomers don't want, you're stuck wit it. But then who ever heard of growth company without risk?

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News Corp.'s Anthea Disney is self-doubting, but there is no reason for her to be that way.

Death Angel's endearing side

by Dyan Machan

Anthea Disney greets me at her mid-Manhattan office at media giant News Corp. I dare to ask for a drink of water, and after getting it for me, she coolly clinks it down. No waitress, she. Then she paces about, dashing on lipstick, with nary any eye contact. This protégé of Rupert Murdoch is on her way to a new position in the company. Her anxiety shows. During lunch she admits: "Whenever I get hurled [into a new job by Rupert Murdoch], I always think this is the one I'm going to screw up."

Today Disney, 52, is chairman and chief executive of News America Publishing Group, the book, magazine and digital division that generates $1.7 billion in sales a year. But soon she'll have a key role in a new Murdoch venture involving the venerable *TV Guide*.

In 1988 Murdoch paid Walter Annenberg a hefty $2.8 billion for *TV Guide* and some other media properties. He probably paid too much, but he is doing his best to salvage the deal. Last summer he pushed *TV Guide* into the digital future by contributing it to a joint venture with United Video Satellite Group, an arm of AT&T's Tele-Communications, Inc. *TV Guide*'s operations, which include a Web site and an electronic program guide, are being combined with the Prevue Channel, a passive electronic listing available to 53 million cable subscribers. The combined entity will be taken public this spring. News Corp. will own 49%.

The word is that Anthea will, perhaps take the top job. "If so, I will fake it. I can do it," she says. "When I became a TV producer, I had no experience in TV. Rupert said, 'Oh, you can do that.' When I was put in charge of HarperCollins, I'd never run a business. He said, 'Oh, you'll do fine.' That's the way he does things, he bets on the person."

Native to Surrey, England, Disney's family was one of the first in the neighborhood to own a TV. Her father was in the television manufacturing business; she started her career in 1969 as a Fleet Street journalist fetching tea. When she landed her first big story, about racial discrimination, she began to be taken seriously.

Anthea has reason to be uneasy. She knows how the press can paint business executives with a dark brush. Why is she talking now? "My job is to make people understand what we're doing and try to explain that he [Murdoch] is not Darth Vader."

As chief executive of HarperCollins Publishers, Disney was dubbed Murdoch's Angel of Death. Why? Well, to bring the company back to its present salubrity, she dared to cancel 100 book contracts with the publisher's stable of authors. "At the time it didn't seem like such a big deal," she says. "It seemed blindingly obvious, yet I was treated like a war criminal."

In 1996, when she took control of Harper, its operating income was down 82% from the year before, to $11 million. Revenue was down 23%, to $946 million. And the return rate for unsold books was a deadly 40%. "I said we'll publish fewer books, which was barely brilliant because everyone else in publishing was doing the same thing. We would concentrate on where we had skills and be able to properly market the books."

I teasingly accuse her, as others have, of destroying the sacred bond between writer and editor.

First a frown, then a stare and fina she smiles. "That 'sacred' bond is ridiculous. To be very kind, the boo that were canceled were not disti guished. It was not a blow to lite ture." One victim was a contract fo gelatin cookbook.

She goes on: "The answer is, we making money, we are profitable, a however misunderstood, we are pois to grow." The book return r improved to a more normal 25 Operating income recovered to $3 million on $1 billion of revenue in t fiscal year that ended last June. E

CHRIS SANDERS

Who's for lunch? Anthea Disney is fed up with the Angel of Death image. It doesn't fit.

that's still less than 2% of News Corp.'s $2 billion in operating income. Why would Murdoch want something that contributes only nickels and dimes to his income statement?

"Number one, it fits in," she says, "There are synergies. Second, Rupert likes books. He reads books. He enjoys having [a publishing house]—it makes him feel good."

My ears perk up. "News Corp., a public company, owns book publishing because it makes Rupert feel good?"

"Yes," she says. "It's not a disaster. No reason to unload it. When you're running lots of businesses, some make lots of cash flow and some don't. Some make steady profits and some don't. We are a content company. Rupert sees HarperCollins as a successful content company."

Anthea and Rupert have known each other for years, first meeting each other in New York bars like Costello's where newspaper people hang out. Murdoch would be sitting with his sleeves rolled up, planning America's *The National Star*. Disney was at the *London Daily Mail* as a foreign correspondent based in New York. "After a flight from somewhere, I'd grab a white wine and chat with my pals. Murdoch was approachable."

She left the *Daily Mail* at age 33 to edit *Us* magazine, and later *Self,* in New York. Si Newhouse canned her from *Self* in 1990.

Luckily her New York bar acquaintance came calling. They hit it off. Both were nurturing dreams of starting a picture-oriented news magazine. Murdoch hired her shortly thereafter to plan the new magazine, but it never got off the ground. Eventually, she wound up at *TV Guide*, where disaster loomed: The debt load News Corp. took on to acquire the Annenberg properties almost sank the company. To make matters worse, in 1991, three years after Murdoch bought it, *TV Guide* was losing ground.

Rupert asked Anthea what she thought of the magazine. She replied that it was small and a bit irrelevant, and got the job as editor-in-chief. During the next five years Disney introduced a redesign and added more serious journalistic pieces. Circulation stuck around 11 million, but ad revenue rebounded to $407 million in 1995 from $279 million in 1991.

She did not, that is, reverse *TV Guide*'s slide in circulation, from a peak of 17 million in the 1970s. Disney's cold calculation: "*TV Guide* is declining, just as the broadcast networks are. But it doesn't mean the magazine goes away. There will always be people who want their printed TV schedules to get out their yellow highlighter." In fact, the digital age may be an opportunity: "In this environment of 100 to 500 channels, you need to find your way."

Disney is going to provide that guidance in her new job. Essentially, the cable Prevue Channel has become the TV Guide channel. There is also TV Guide Interactive, an on-screen electronic program guide, which goes to 1.1 million households via a set-top box. Meanwhile, News Corp.'s current Web site TVGen becomes TV Guide Online.

Says Disney: "It springs *TV Guide* out of the straitjacket to become a real brand with real brand extensions."

In the new company, TV Guide Interactive becomes even more interactive. The guide will deliver movie trailers on demand; TV mail, which will enable subscribers to contact other subscribers with instant messages on the

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We trot to her office for a demo. On the way she points to an open door and jokes: "That's Darth Vader's office."

Once in her office, she slips a videotape into a VCR. The sound doesn't work right. We hear a breathy scene from an afternoon soap while we see the guide on the screen. She points the remote and starts clicking like mad, getting frustrated. We finally give up and go to the next demo. For all this TV guidance, as she calls it, subscribers will pay a modest amount on their cable bill. TV Guide Inc. will receive fees from cable operators and from selling ads.

What had t be done wa obvious. Yet I was treated like a war criminal.

"We found out that the possibility of missing a show creates anxiety for viewers—which obviously we'd like to encourage," she says devilishly, "We like anxiety in this world."

Let's talk about anxiety. How about those Murdoch kids? James Murdoch 26, the most wired Murdoch, worked for Disney on TVGen. Roaming elsewhere in the company are the other two Murdochs—Elisabeth, 30, and Lachlan, 28.

Says Anthea cheerfully, "They are breathing down my neck and will undeniably overtake me." In fact, they are right on her heels. Lachlan was recently named a senior executive of HarperCollins and other publishing properties.

"People fawn all over the kids," she says sympathetically. "Either they want to lick them to death or murder them." At this point she begins to freeze up a bit, making eye contact with the wall. "They were accelerated into their jobs but all three would have arrived there ultimately, because they've got the genes and pressure to perform."

The Angel of Death wasn't so scary after all. "I live with small aspirations," she says with what seems a very honest sigh. "I don't want to run countries or become a corporate superstar. My aspiration is not to screw this up." She probably won't. ■

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Someday a smart marketer will take over little WD-40 and make it into something big.

Johnny One-note

By William P. Barrett

Who doesn't know WD-40? Four out of five American households have at least one blue-and-yellow spray can for loosening the stubborn elbow joint under the kitchen sink or silencing the squeaky screen door. Despite some 200 rivals, WD-40 has an estimated 70% of the U.S. market for multipurpose lubricants—which has led to something of a cult following.

Consider the newspaper accounts of how WD-40 was used to extract a python from a bus exhaust pipe or a burglar stuck in an air duct (yes, he was arrested). Jay Leno uses it for jokes: "Prevents chafing when handcuffed by Madonna." Recently the TV sitcom *Dharma & Greg* showed a grieving relative using WD-40 at an open-casket viewing to remove a promised ring from the deceased.

Who wouldn't kill for that kind of brand recognition? And who wouldn't kill WD-40 management for doing such a lethargic job of capitalizing on it? Everywhere else in American business, marketers are hard at work looking for ways to exploit famous brands by extending them into related products. Not at this sleepy outfit, whose earnings have inched ahead at a 3% rate over the past decade.

A market share of 70% is tough to boost—a predicament FORBES long ago noticed *(Sept. 5, 1988)*. So the company should have been slapping its familiar logo on related products. In the fiscal year that ended last August, WD-40 earned $22 million, or $1.40 per share, on revenue of $144 million. The potential for much bigger sales than that puny sum would seem to be great. How about a WD-40 grease gun, or paraffin lube stick for windows, or lithium spray grease or two-stroke oil for your chain saw? There is no WD-40 version of any of these things. You go to Home Depot or Pep Boys looking for such lubricants and you will see shelves filled with forgettable brands that Jay Leno doesn't joke about.

Heaven forbid that WD-40 went after a long shot, like a piece of the huge market for motor oils—or maybe something outside the lubricant business. That might require risk-taking, and the managers at WD-40 haven't been risk takers. Instead, they take pleasure in paying out a handsome dividend (91% of earnings last year, currently yielding 5% on a recent stock price of $25.25) and sitting on a squeaky-clean balance sheet with $19 million in cash and liquid investments and less than $1 million in debt.

Squeezed: Ridge has a great product, but needs to expand.

"We're a bond in drag," laughs Garry Ridge, the stock's 42-year-old chief executive, a onetime traveling salesman from Australia. "We are the ultimate defensive stock."

Is that something to be proud of?

Very little has changed since the early 1950s, whe

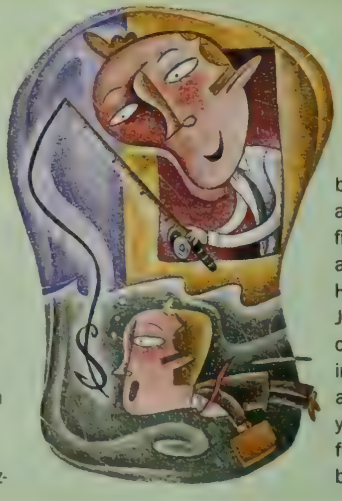
▶ follow the money/ VENTURE CAPITAL

Show them the money

To make the really big bucks, young venture capitalists once had to wait years to make general partner. No more. These days more junior vcs are demanding, and getting, a piece of the carried interest, the industry's version of stock options.

Carried interest typically sets aside 20% of a fund's total net realized gains to the venture capital firm. The bigger the fund, the bigger the payout.

That 20% is divvied up at the discretion of the top partners, based on seniority and performance. Today a junior partner may get as much as 1.5%, an associate 1%—still less than senior partners, who make 4% to 7%, but more than they got three years ago. Moreover, firms are starting to draw down the carried interest well in advance of a fund's termination—typically ten years—realizing those gains when a company in the portfolio goes public or gets bought out.



Carried interest is even being used as a recruiting lure to find the best and the brightest at the associate level an incentive almost unheard-of five years ago. Marc Fogassa, an M.D. who will graduate from Harvard Business School in June, has already received two offers: One promised carried interest right away; the other agreed to consider it after one year. (Taking the second offer from what he considered a better firm, he has already

VERN EVANS

made at company headquarters in a surprisingly small vat, 12 feet across and 6 feet high. The result is a magic brew, with a faintly sweet odor that handymen find addictive (many competitive products stink).

The concentrate is shipped to contractors, who fill 100 million cans a year. The cans could be designed a lot better. The red plastic caps don't stay on the cans and there's no snap to hold the auxiliary spray tube. You end up cussing the manufacturer—but still you go back for more, because WD-40 is the closest thing to a panacea in the world of home repair.

So what's the company doing to exploit the legend? After decades as a one-product outfit, it shelled out $15.5 million to buy the 3-In-One oil brand in 1995. That deal now accounts for maybe 5% of earnings but did nothing to exploit the WD-40 brand name. In 1996 the company rolled out a more viscous version of WD-40 called T.A.L. 5 ("Triple Additive Lubricant"). Sales so far are minimal.

Ridge, a 12-year company veteran and chief executive since late 1997, says he's looking to make a big acquisition. But he's mighty picky—having sifted through 160 opportunities without finding one he likes. He is striving to lift foreign sales from a current 45% of revenue to 80%. Can he stand the risk? Last year WD-40 Co.'s provision for bad debts rose 50% after two Latin American distributors failed to pay $500,000 of invoices.

Last time we looked, Ridge and other insiders owned only 15% of the float. Any raiders out there? ■

esearchers at Rocket Chemical Co. were trying to develp a petroleum-based substance to protect missile skins om moisture. After 39 formulations, they finally hit on ne that worked. Hence the name: Water Displacement-0th attempt. In 1959 the company began peddling WD-0 to consumers around the San Diego area; it went ublic in 1973.

The company operates with 165 employees, outsourcng 80% of the manufacturing. Most of the concentrate is

ined Boston-based Atlas Venire as a part-time associate.)

Competition for new recruits as never been so intense. enture capital firms are going ead-to-head with other private quity firms, investment banks nd Silicon Valley startups—all earching for the same fresh alent. "A lot of us are looking r someone with a very similar pec," says George Pavlov, a eneral partner at Mayfield und. "There's not a lot of em to go around." What they ant is a sharp financial mind, technical background and ome operating experience.

At the same time, venture capitalists are desperate for new blood. A record amount of money is pouring in—$16 billion in 1998—and more hands are needed to find target companies for those investments. The latest crop of recruits seem to be earning their keep. "Senior partners are doing less work and the younger guys are picking up the slack," says a 30-year-old junior partner at a Silicon Valley firm. "So we're starting to get a piece of the action—relatively speaking."

It's more than relative. According to William M. Mercer's 1998 Compensation Survey, which analyzed pay for 60 venture capital and private equity firms through May 1998, total compensation jumped 128% for junior partners and 35% for associates. Most of that rise is attributable to carried interest. Boston-based Summit Partners, with $3 billion under management, figures that in the last three years it has doubled the combined value of salary, bonus and carried interest for its junior-level venture capitalists.

The newfound bounty of young vcs is something of a mixed blessing for entrepreneurial clients. On the plus side, the same market forces driving the competition for top new talent are also spurring the search for hot, young entrepreneurs with cool ideas to back. This, in turn, is pumping up companies' valuations. Younger turks may be open to new approaches and business models that are taboo to the older school. But there's a downside, too: The new caretakers of startups often lack the experience and extended networks of their elders.

–Luisa Kroll ■

starting your own BUSINESS

A slow-talking Alabama engineer needed a restless Chicago entrepreneur to get his surveying business off the ground.

High-wire act

By Brandon Copple

ANN STATES/SABA

This odd couple rebuilt a moribund startup.

Entrepreneurial odd couples can make or break a company. In the case of Aerotec LLC, the chance meeting between two people of very different talents and temperaments saved the startup from certain death.

It was October 1997. Clay Graham, a onetime Chicago business owner who was then evaluating potential investments for a venture capital friend, sat fidgeting in a conference room at the Sears Tower. He was listening to James Dow, a mechanical and aerospace engineer for 21 years at Alabama Power Co., make a pitch for his airborne surveying business. Dow droned on in detail about how a laser mounted on a helicopter could map electric utility power lines—noting, almost as an afterthought, that the gadget could provide better engineering drawings than traditional ground surveying, in less time and for the same price (and at a fraction of the cost of satellite pics). "It was an engineer's, not a business, presentation," says Graham.

Still, he saw promise, and approached Dow afterwards. The methodical Southerner and the energetic Chicagoan hit it off. But after Graham started looking into the finances of what was then called Airborne Remote Mapping, his hopes plunged. There were no ledgers to examine; receipts and invoices lay scattered around the office if they existed at all. The company had not made regular lease payments on the laser or the helicopters for nearly a year. One investor had written personal checks to help make payroll. Graham guessed the company was losing more than $100,000 a month.

But Dow was onto something. Flying at 1,000 feet, his helicopters could survey about 100 miles of transmission lines a day. After a laser swept the ground with 7,000 pulses per second, Dow's filtering software turned the data points into detailed engineering drawings and diagrams on CD-ROM. Accurate to within 10 centimeters, they showed exactly which tree branches migh be too close to power lines– and how much slack was i the lines.

The timing was right, too Utilities were just beginnin to resurvey their system after decades, now tha deregulation was on the wa which would force them t open up their transmissio grids to competitors.

Last January, Graham sug gested to his venture capit friend that instead of inves ing in Airborne Remote, h ought to purchase the asse of the company and let Do start fresh. Two month later, with $10.5 million i venture capital, Aerotec w born, with Graham as chi executive and Dow as chi operating officer. Some the money helped pay o old debt and phase out th original investors.

Graham's first order business was to spruce up th sales pitch. Utility executiv could be spared most of th technical wizardry. The wanted to hear cost benefits– how Aerotec could charg roughly the same amount ground surveyors ($4,000 $7,000 per mile of groun surveyed), but do the job in a fractio of the time (less than two weeks, vers closer to six months) and deliver mo detailed and accurate data.

Next came the job of cleaning the balance sheet. Airborne Remo had lost prospective customers word spread that its helicopters ha been repossessed a time or tw Graham spent $1.4 million on tw Eurocopter commercial choppe and another $2.6 million on the las technology they'd been leasing fro Saab, Inc., of Sweden. Today, wh clients wonder if Aerotec will around long enough to finish a jo Dow and Graham can point to $9 million in fixed assets against $5 m lion in long-term debt.

Since Graham, 56, took over l March, Aerotec, based in Bessem Ala., has done business with 21 c tomers, up from 3, including Paci

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Gas & Electric and Duke Energy Corp. The company came close to breaking even last year on revenues of $2 million, compared with $120,000 in 1997. This year, Graham expects to earn at least $1 million on $4 million in revenues.

He and Dow, 51, are branching out from utilities—surveying small airports in Massachusetts and a petroleum pipeline in Minnesota. And they're going international: setting up shop in Calgary in July.

There are, however, limits to their partnership. Recently, when Dow threatened to take him fishing, Graham bowed out, saying, "My five iron doesn't have a fishing line." ■

Will Wilkinson has designed a workout suit to help you shed extra pounds—and put tons of money in his pocket. He's hoping for a $10 billion market. Hello?

A bit of a stretch

By Joanne Gordon

Inventor William Wilkinson has some 200 patents in his name—and he's made some money on a few. Remember step aerobics, which had people hopping up and down on colorful plastic boxes? Wilkinson created that workout while in the hospital recovering from a back injury, then licensed it to Reebok for what he calls "millions." Other big winners: the Nordic Track Walk-Fit treadmill and the Motor-Ball, a radio-controlled toy.

Now comes a bodysuit made with Lycra—DuPont's brand of spandex—designed to help people burn off extra calories while exercising. "Our slogan is 'wear a workout,'" says 53-year-old Wilkinson, who has spent ten years and about $1 million of his own developing the garment. The sleek, black outfit weighs less than a pound and looks like something Cat Woman or Batman might wear.

Here's how it works: Two-inch-wide bands of Lycra, stitched throughout the suit, lie parallel to muscle groups up and down the arms, legs and torso, adding what Wilkinson calls a "subtle resistance" to the body's natural movements. Result: You expend 50% to 75% more energy, depending on how vigorously you move.

Wilkinson, who has a degree in his [illegible] languages from the University of Delaware and an M.B.A. from the Wharton School, first got the idea while recovering from back surgery; he wanted to get more out of his 30-minute walk in Chaddesford, Pa. But when he tried to patent the technology he discovered that Timothy Dicker, a Los Angeles chiropractor, was working on a better concept—strips instead of weights. Wilkinson bought the rights to Dicker's work and they became partners.

CHRIS CASABURI

Plenty of sweat equity: Wilkinson, du Pont and Dicker.

The bodysuit went through more than a dozen incarnations, ending up in the hands of Robert Neeves, a director at the University of Delaware's Sports Science Center, a popular training spot for Olympics-bound athletes. "I pooh-poohed the original idea," recalls Neeves. But initial test results were promising, and Neeves suggested different ways to position the strips. Successive tests yielded better results, as Neeves compared the oxygen intake of people walking casually on a treadmill with that of subjects wearing the suit while walking briskly.

Wilkinson contacted DuPont in 1991 in search of an adviser and investor. He says he didn't trade on his connections—Wilkinson's dad, Bud, opened DuPont's first nylon factory 60 years ago in Seaford, Del.—but found Benjamin du Pont, a sixth-generation descendant of the company founder and an executive in charge of new product development for Lycra. "Years ago DuPont would never have considered something we didn't invent," says du Pont. "Those days are gone."

The manufacturing giant has invested less than $100,000. More important, it is helping Wilkinson cut a deal with an unidentified sports apparel company—probably Reebok or Nike—to make and distribute the body suit, which should debut in the fall and sell for about $175. DuPont will get a small percentage of sales, perhaps 2% or 3%. (Wilkinson declines to discuss his royalties.)

The apparel deal puts visions of dancing dollar signs in Wilkinson's head. He mentions the figure of $1 billion in annual global retail sales. Ben du Pont quickly knocks that down to $1 billion. That's more credible: Last year, according to the Sporting Goods Manufacturers Association, Americans spent $35 billion on sporting apparel and $30 billion on sports equipment.

"The industry is dying for something new," says John Agoglia, managing editor of *Health & Fitness Business* magazine. Maybe something as goofy as an exercise suit. ■

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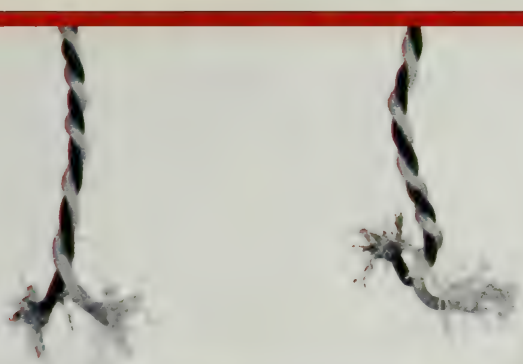
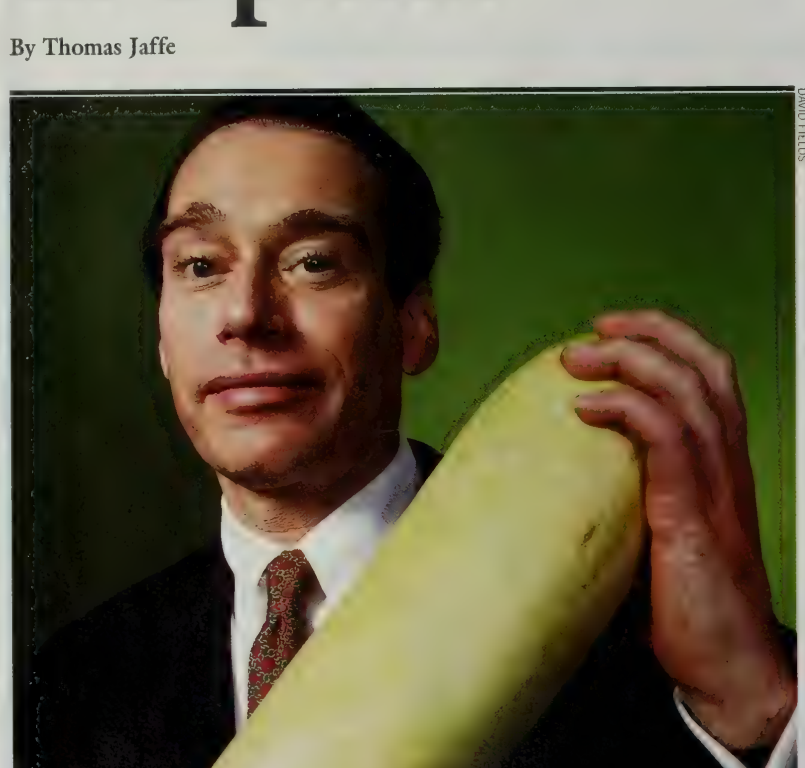


AND SO MUCH HARDER WHEN YOU DON'T.

Campbell put a bunch of its losers into a shopping cart and handed them to Robert Bernstock. If he can make Vlasic International work, he will be viewed as a genius.

In a pickle

By Thomas Jaffe



DAVID FIELDS

Vlasic's Bernstock **Stackers backer.**

BE CAREFUL what you wish for. All his working life Robert Bernstock ached to be the top man. He slaved away at General Foods for 9 years, flogging Stove Top stuffing and Minute Rice. He worked as an executive at a direct satellite broadcasting company and a software startup. Then he joined Campbell Soup, rising through the ranks for 13 loyal years, scoring big with such brand innovations as V8 Splash fruit juices.

Then the big day came. Last March Campbell spun off a bunch of its businesses and Bernstock was named chief executive officer of the new outfit. His piece of the action? Pickles and TV dinners. Yech!

Bernstock, now 48, accepted the assignment eagerly. This was his big chance to run a packaged-goods company. Why not make the most of it? The piece he got—Vlasic Foods International in Cherry Hill, N.J.—is rather large, at $1.4 billion in sales. But Vlasic isn't something many would want. It includes besides the pickles and Swanson frozen foods, a moneylosing Argen tinean cattle operation and a $60(million load of debt—six times it equity. It was a hodgepodge of stuf Campbell was anxious to get rid of In the fiscal year that ended last July Vlasic—penalized in particular b losses in beef—eked out, on tha large sales base a profit of $2 million, or 5 cents a share and those figure are before restructuring charges.

All by itself the Swanson divisio would drive any sane consume goods marketer to despair. "Ther hasn't been a new dinner introduce in the Swanson line since the Korea War," says Bernstock. "It's one thin to have missed food trends like Tha but we even missed Italian."

In pickles, Vlasic is at least th leader in its category (32% of supe market-sold pickles, almost doubl that of second-ranked Claussen). Bu any way you slice it, the pickle mark is not a glamorous one.

Bernstock reels off some statistic It seems that the U.S. homemad sandwich market comes to 35 billio units a year. Only 3% of those sand wiches are served with pickles. If onl there were some way to boost pickl penetration. . . .

Even before Bernstock took ove researchers at Vlasic studied th matter. In 1995 they introduced brilliant idea: Cut pickles lengthwis into flat slices rather than crosswis That way you can put them *inside* th sandwich—and they won't fall ou Vlasic's innovative pickle slices, calle Sandwich Stackers, were an instan hit, reaching $60 million in sales th first year.

Alas, it is not possible to patent new way to cut pickles. Sandwic Stacker knockoffs cropped up ever where and Vlasic's sales for th lengthwise category have stalled.

Time for another, more darin innovation. Think of all the Whop pers and Big Macs sold every yea with those little pickle slices th can fall into your lap. Vlas

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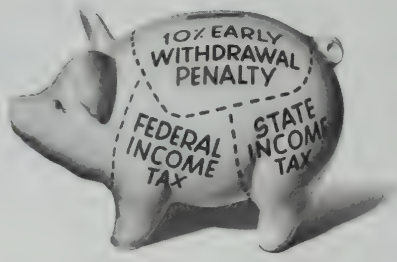

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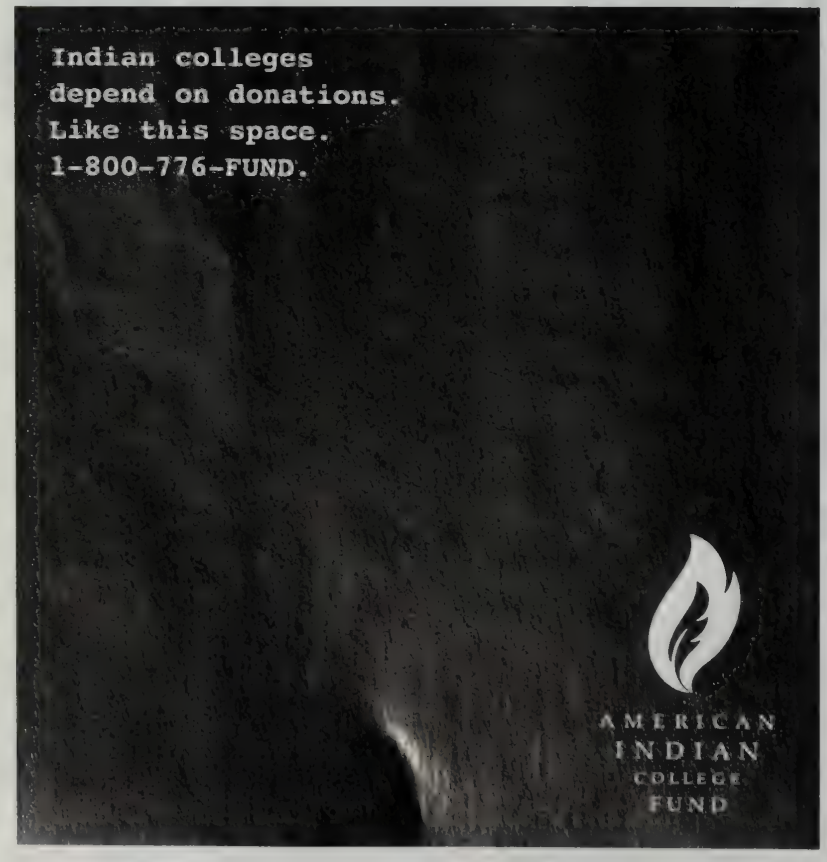

"There hasn't been a new dinner introduced in the Swanson line since the Korean War. It's one thing to have missed food trends like Thai, but we even missed Italian."

researchers developed a strain o giant cucumbers. Pickle them, slic them crosswise, and what do yo have? A pickle that covers an entir burger. Hamburger Stackers are du to hit the supermarkets by the en of February.

Bernstock's team moved on t fried chicken, Swanson's biggest sell ing—but least profitable—selection Like the rest of the Swanson line, th chicken was stuck in a time warp. Th pieces were heavily breaded with to many bones and not enough meat— reflecting the category's origin at time, decades ago, when chicken wa an expensive luxury. The price o chicken has gone down 73% sinc 1954. Bernstock upgraded the chick en line and advertised it heavily o television.

Look for Bernstock to probabl put Vlasic's cattle business on th block next year. Ditto for an opera tion that supplies frozen food servic products to Campbell. Frozen food and food service in the U.K. a mushroom company and a smal midwestern brand of barbecue sauc all account for $300 million or s of sales. Bernstock is giving thos businesses two years to prov themselves.

"When it comes to brand-building it's great to have just two to focu on," says Bernstock. "At Campbell had 18. We have a volume-forecast ing meeting once a month. Becaus of my Campbell experience I'm men tally prepared for four hours. Here 45 minutes pass and we're done. say, 'Can't we do it again?'"

If Bernstock's work starts payin off in the current fiscal year, h company could earn $1.13 share. That would make the recen $17.19 share price downrigh reasonable. ■

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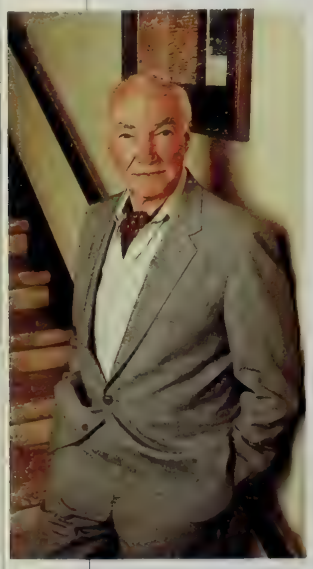
By Jerry Flint

The assault on Fortress GM



Ford won't tell you openly they're gunning for GM. But the signs are obvious.

FORD HAS LAID THE GROUNDWORK for a massive attack on General Motors. Call it the Big Push, and it will roll out starting next year.

This is the biggest Ford assault on Fortress GM since the 1950s, when the Ford men, led by the likes of a young Robert McNamara, charged up the hill screaming, "Beat GM." By 1959 the Ford men were stumbling down that hill, defeated, dragging their new Edsel (which, by the way, wasn't McNamara's car) behind them. It's taken those 40 years for Ford to build up such courage again.

But it's coming. Last year GM sold 4.6 million cars and trucks in the U.S. to Ford's 3.9 million, a spread of a mere 700,000 (albeit one temporarily narrowed by the GM strike). Throw in Volvo, which Ford bought, and it's down to a 600,000 lead. Throw in Mazda (which Ford controls) and Isuzu (which GM controls) and the spread narrows even more, to close to 400,000.

Ford's Big Push just might overrun the first few lines of GM's trench in 2000 and 2001, taking away three points of market share (each point was worth 150,000 units last year). If I'm right, that would leave Ford at 27% to 28% of the market, just about where GM is likely to be.

Ford has six entries coming in the hot and profitable truck/sport utility sector:

1. The Excursion, a monster sport utility even bigger than the largest GM Suburban. Production starts this fall.

2. The Explorer Sports Trac, coming in a year. Here Ford puts a small pickup truck box on the rear of the Explorer.

3. The Crew Cab, a four-door big pickup (real doors, with handles).

4. A small SUV, to be built near Kansas City in the spring of 2000. It will be big volume, 150,000 or more. The name will start with the letter E, which Ford uses for its sport utilities. Starting price: under $20,000.

5. A still-smaller sports activities vehicle, built off the small Focus car platform.

6. The Blackwood, a more-luxurious-than-yours Lincoln Navigator with a small pickup bed on the back, costing around $50,000. Low volume.

All of these products are really new, not disguised imitations of stuff already out there.

Believe me, that's a lot of product coming fast, and on the truck side, where the money is. But there are new cars, too. The Focus, the small Ford, replacing the Escort, goes into production later this year. Then there's a redo of the Taurus, a new Lincoln entry-level luxury car ($35,000 to $40,000) this summer, and a new Thunderbird, maybe at the end of next year.

And there's the addition of Volvo, which had 100,000 U.S. sales last year. Making that number bigger will not be easy. It isn't really a luxury brand; it's a middle-class marque that got expensive because of high costs in Sweden. But as an investment, it's probably better than—to name three disasters in Ford's history book—Philco, Ford Aerospace and the Sgt. York rocket.

What could go wrong with Ford's grand plan? The cars—especially that new small Focus—just might not catch fire.

Then Ford's dealer consolidation program might mess things up. The company has begun buying out dealers and creating company-controlled showrooms with one-price selling within a given city. In the first test, Tulsa, the combination seems to be costing Ford some sales.

Third, the competition might get hot. GM promises plenty of new product, too. Except for its pickup trucks and bigger utility vehicles, though, GM designs haven't threatened anyone for years. And, except for new SUVs coming this fall, much of GM's newer stuff is three years away. Ford could be on top by then. Still, it's possible that GM's new designs and brand marketing will work well. Possible.

Last, Ford's problems elsewhere might divert attention from the U.S. effort. Brazil is a disaster for Ford, Asia and India are seriously disappointing, and Ford Europe just hasn't looked very strong.

But all that won't alter Ford's attack plan. The designs are finished, the machine tools are being built and the marketing is being debated. Ford is getting ready to roll.

Ford people won't tell you openly that they are after GM. But you don't have to be a weatherman to know which way the wind is blowing. ■

Jerry Flint, a former FORBES Senior Editor, has covered the automobile industry since 1958.

'ou hear a lot about "focusing on core competencies." Centex Corp. nakes a case for going in precisely the opposite direction.

Home building plus

y Christopher Palmeri

HE NATIONAL Association of Home Builders predicts that ousing starts will be down 5% is year, to 1.5 million. If that appens, earnings could be inched at the nation's three rgest home builders, Kaufman & Broad, Pulte and D.R. Horton. But number four uilder, Centex Corp., stands a ood chance of eking out a rofit gain, to $250 million, on les of $5.5 billion.

How might Dallas-based entex buck the trend? By int of being more than just a uilder of homes. It has, over e years, diversified into half dozen businesses, ranging om cement to pest control, at are ancillary to home onstruction, and it is looking r still more distractions.

Veering away from one's re competency is considered heresy some quarters—didn't AT&T spin off s telecommunications and computer anufacturing businesses to much claim? But there is something to be id for diversification if your business is clical. Which home building is. efore much of its diversifications, entex lurched from profits of $62 million in 1989 to $34 million in 1991.

For many years the nation's top ome builder, Centex began throting back three years ago. It started wer suburban subdivisions and cused instead on ways to squeeze ore profit out of its existing size. entex kept its new-home sales flat at round 13,000 units per year. That lowed Pulte, Kaufman & Broad and Horton to leap ahead in terms of new omes built, but it made Centex the p home builder in the FORBES list of latinum companies, with an average ve-year return on capital of 13.4% FORBES, *Jan. 11*).

Centex Chairman Laurence Hirsch

With each new home, a chance to sell bug spray.

Chairman Laurence Hirsch had something of a head start in the diversification business when he joined the company as president in 1985. Centex already was making cement and wallboard, originating mortgages and running a general contracting unit to build schools, hospitals and industrial properties. Hirsch wanted to diversify even more.

Noticing that mobile homes make up nearly one-third of all new homes sold, Hirsch bought 80% of Cavco Industries, the number one mobile home maker in Arizona, for $73 million in cash in 1997. Since then Centex purchased a small mobile home retailer in Arizona and started up a business that finances mobile homes and another that builds trailer parks. The mobile home operations are expected to have operating earnings (net before depreciation, interest and taxes) of $12 million in the fiscal year that ends March 1999, up from $6.7 million three years ago. All told, the non-home-building businesses now account for 44% of Centex sales and 50% of operating profits.

Besides spreading out his company, Hirsch spreads out his management power. The home building operation is split into 40 profit centers run by local presidents who take full responsibility for things other large builders do at headquarters—like buying land, purchasing building materials and contracting services. These regional presidents can double or triple their salary by turning in fat profits. "I tell people this is the closest thing to running your own business without putting your name on the debt," says Andrew Hannigan, president of Centex's home building operation.

Starting new businesses also gives senior executives who might jump to rival builders or start their own companies a way to stretch their wings. Stephen Weinberg, 51, was in charge of a Centex home building region when Hirsch tapped him to run a new venture that offers home security, lawn care services and pest control to Centex home buyers and other customers.

Pest control? Centex installs a series of porous plastic pipes in the walls of new homes as they are built. For $75 every three months, a Centex employee fumigates the house. In new communities as many as 90% of home buyers sign up for the service. Weinberg's unit now has 100,000-plus customers and $31 million in revenues.

Hirsch can't eliminate cyclicity from the home building business, but if he can moderate it, he should be able to reduce his cost of talent and maybe even his cost of capital.

An interview with Leon Levy and Walter Wriston.

Paradigm change?

PHOTOGRAPHS BY MICHAEL I N BOWLES

Levy and Wriston see the economy through different lenses. Levy, a speculator at heart, doubts that earnings will support current multiples. Wriston, championing technology, says accounting tells us too little.

By Tim W. Ferguson

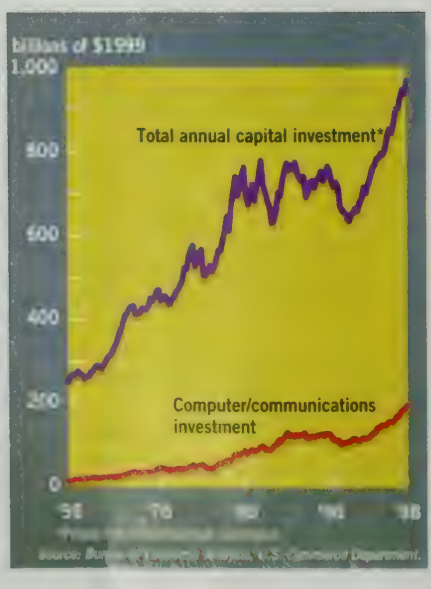
SKY-HIGH PRICES on stocks of earnings-less companies. An investment boom into the teeth of a seeming oversupply of goods. Global shocks that barely rattle Wall Street. Is it folly—or are we in a New Economic Paradigm, its rules rewritten by Moore's Law and the infotech revolution?

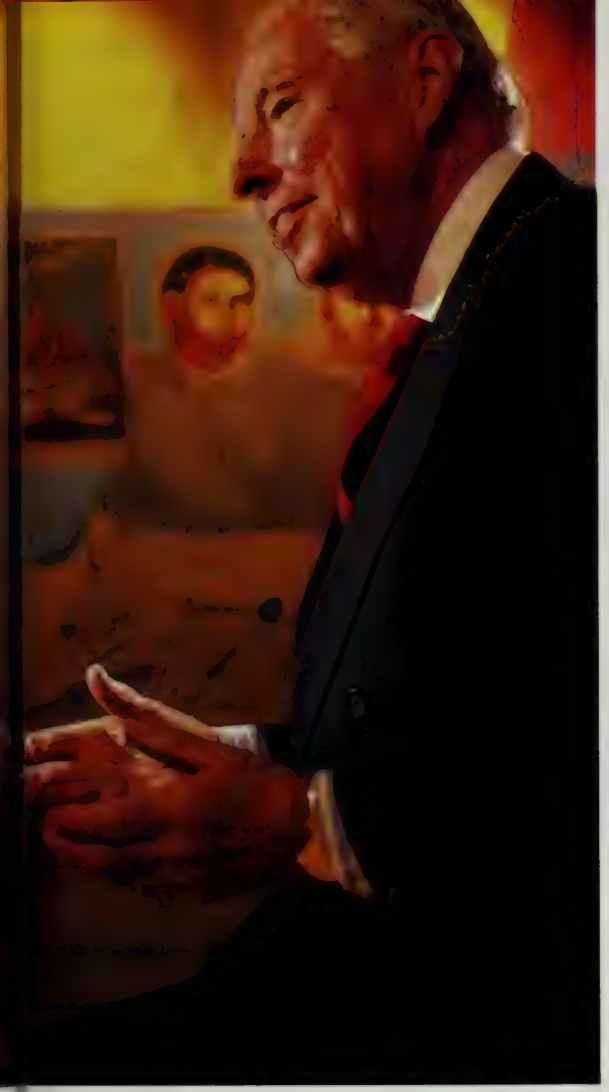
FORBES readers are acutely sensitive to hype. They know business runs in cycles and nothing grows to the sky. Yet there's an enduring case for optimism. It's evident that the many dour warnings of the 1980s about America living beyond its means and due for a dire reckoning were utterly wrong. These jeremiads often were grounded in basic business accounting but somehow they missed an enormous transformation of the economy. Do the doubters of the new valuations and the new rules at the end of the century similarly miss the point?

To bring long, practical experience into this debate, FORBES sat down with Walter Wriston, the retired chair-

The old...

For all the attention paid to technology, its driving sectors still amount to only about 20% of capital investment (tech prices are falling, depressing this measure). Tech stocks, though, help create a wealth effect, leaving debt-happy consumers exposed if the equity party ends. The growth camp rebuts: If we figured right, tech's economic role would look bigger and the boom's foundation firmer.



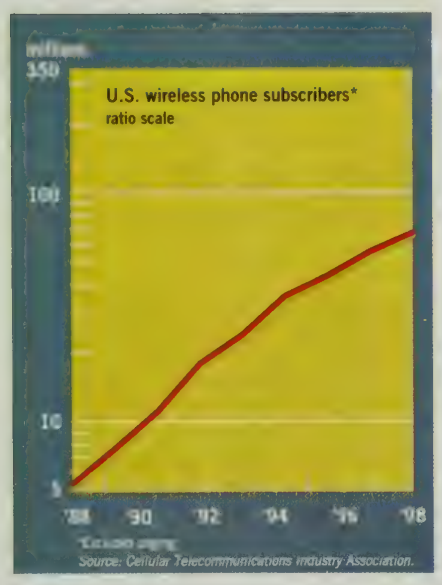


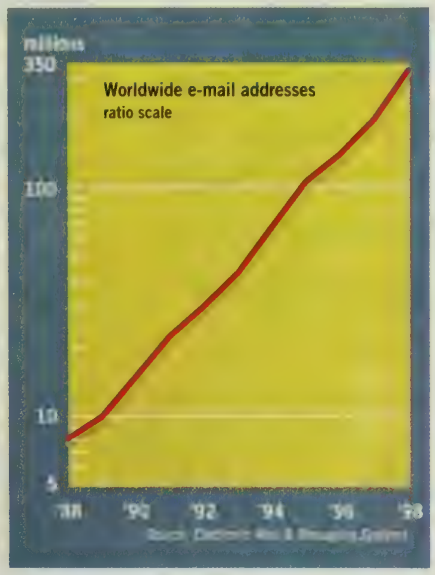
man of Citicorp, and Leon Levy, longtime hedge-fund don at Odyssey Partners and currently chairman of the Oppenheimer Funds. Wriston, 79, is the author of *The Twilight of Sovereignty: How the Information Revolution Is Transforming Our World* (Simon & Schuster: 1992); he was early to perceive that the digital era would bring profound changes not just to the economy but to government. Levy, 73, made a fortune on Wall Street by betting against the popular enthusiasms of the day.

FORBES: Do we have a New Economy? Are the rules different from the ones you grew up with?
Levy: Strange things are going on that look to me more ephemeral and cyclical than long term. I think we're going through a period that has some of the fantasies of the 1920s. I see tremendous speculation, where people think they can make more money trading stocks than they possibly can by being in business and making products.
Yet output in the real economy seems to barrel right along with stock prices.
Levy: No, last year corporate profits were down a little bit. And as the world gets closer and closer together, you can't ignore what's happening in Southeast Asia or in Latin America or in Russia.
Wriston: Southeast Asia, ex Japan, has a GNP about half of [that] of Massachusetts. But in the new economy, there are some new rules. Brian Arthur's work at the Santa Fe Institute and at Stanford shows that the law of increasing returns does operate. That means that one fax machine is worth nothing; connect a hundred of them together, they're worth something; connect 10,000, they're worth a lot. The same thing happens with credit cards and everything else. It's the reverse of the law of diminishing returns. It's a function of the network economy.

The new

Leaps in connectivity—at stable or falling real cost—power the info-network economy. Growth in wireless phones (which may be even faster outside the U.S.) is one indicator of how much easier it is to be instantly in touch. Meanwhile, multiplying e-mail addresses (figure ..8 for every e-mail user) track the rise in easy digital exchanges. So we are ever more plugged in. Skeptics ask: To what end?





Continuing that logic: Scarcity is not a definer of value, as it was in the industrial age. Value comes from something different. And so maybe it's okay for stocks to trade at 32 times earnings, rather than the norm of 14 times for most of this century?

Wriston: I don't know anything about the stock market. Leon is the expert in that. All I can tell you is that in the 1970s, Polaroid traded at 96 times earnings, and McDonald's traded at 82 times. Polaroid, of course, came a cropper. Gee, I don't know what happened to McDonald's. . . .

Levy: I think they've been through a tougher period. Because there got to be more hamburger stands than there were children who can eat hamburgers.

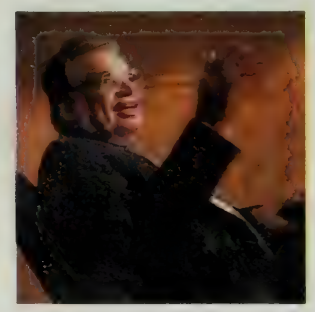
Maybe gluts still matter—don't we have a glut of commodities, like oil?

Levy: When I was younger, I picked up the report of the purchasing agents once a month and they said the following commodities or products are in short supply. It's a long time since I've read about anything that's in short supply. Do you know of anything?

Wriston: Attention.

Tangible net worth seems to be in short supply in the stock market.

Wriston: All of our accounting is an artifact. Yesterday, for example, we were told to write off our software because it's an intangible. The whole Y2K problem is caused by 20-year-old software, while the hardware that we were told to capitalize has all been replaced. So they had it exactly backwards.



"It's been a long time since I've read about anything that's in short supply. Do you know of anything?"

What I would argue is that since intellectual capital is the current paradigm, and innovation rather than incremental change is what makes the old mare run, we have no way to bookkeep. If you look at Microsoft's balance sheet, you'd say, well, they don't have any assets, except some cash. But they also have 27,000 people with intellectual capital, and the market recognizes that. You can argue what the P/E should be. But right now the numbers to me don't mean anything.

Take working capital. Dell Computer is selling $10 million a day on the Internet now. They turn their inventory 52 times a year. And they don't pay their suppliers for 10 days. So their suppliers finance the entire business.

Levy: Look, it's just a new kind of store. Which we each have seen before. First in the 1930s, the supermarket came, and they put all the corner grocery stores out o business. Then came the discount stores in the 1950s. I 1962, an established retailer like Kresge's became Kmart Discount stores didn't go broke when they were firs started, but they dò go broke—because it's too easy t create a discount store.

I don't think the franchise on the Internet is going to be worth anything like what the market attributes to it. Sure, everybody will be on the Internet. It's a good way of selling, maybe better than anything we've ever had before. Maybe for books. But I don't think the profits will be there. And I think that Amazon.com, no matter what happens, is overpriced.

"The transitional companies always sell at wild P/Es. Look at Edison and the electrical stocks."

Wriston: The transitional companies always sell at wild P/Es. If you look at when Edison invented the lamp and all of that, electrical stocks were selling at 80 and 90 P/Es. There used to be maybe 10,000 telephone companies in the United States. They were transitional companies th moved us into the industrial age, and today the Interne the software companies and all the rest of it are part of t transition. Whether they're too high or too low, I don have the judgment. They're tomorrow's drivers, and peop who believe that put a P/E on them that people who don believe the change has come do not.

Levy: A stock is still part of a business organization, and values the entire business. Now if you took Amazon, y would be very hard-pressed to come up with any amou of books you can imagine are going to be sold [to just the market value].

Wriston: Books are only their first product.

Levy: And when there are other products, there will other Amazons.

Wriston: One of the things the Net does is give the pow to the consumer. You can go into the Net and say, I wa to buy a life insurance policy. And they have a little age in there that will give you six quotes—if you want a A company, a AAA company, or an A company. Same thi with a mortgage. You just type in your zip code, and the give you the mortgage rates and the names of the vendo That's a totally different way of doing business.

Levy: Yes, but in the end you still have a loan on yo house. Now maybe the intermediary gets paid less arranging that mortgage, and that's a good thing for so ety. But somebody still has to buy the home.

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A judge in Texas has ordered that the tide of technology be stopped. King Canute had an easier task.

Arrest that software!

By Daniel Fisher

IN A RULING that could remove the Quicken Family Lawyer program from store shelves across Texas, U.S. District Judge Barefoot Sanders in Dallas found that the program is a little too smart for its own good. The program, published by Mattel 's Parsons Technology division, doesn't just spit out canned versions of wills and other legal documents. It helps users craft a customized document by posing questions such as how many children they have and what state they live in. That dash of artificial intelligence was enough to push Quicken Family Lawyer across the line into the illegal practice of law, Sanders ruled.

Wait a minute. The software products may be removed from retail stores. But any Texan who wants to can still get the software. How? Simply by downloading it off Parsons' Web site, www.parsonstech.com.

"There's no way to police this," says Deborah Rhode, a professor at Stanford Law School. "It's inevitable that this kind of software will become more available. This is Custer's last stand."

Fighting words for the Texas bar. "The [Parsons] program is like a cyberlawyer," huffs Mark Ticer, the attorney who pursued the case against Parsons. He did so on behalf of something called the Unauthorized Practice of Law Committee. This is a secretive, quasi-governmental agency funded by the State Bar of Texas. "It's like someone sitting on the other side of the desk and drafting the document for you," Ticer says.

What about a law textbook that instructs you how to write the perfect will? Isn't that giving the same kind of advice? Could the Unauthorized Practice people have such a book yanked from the shelves? And wouldn't there be a bit of a First Amendment problem if they did?

In his ruling, Judge Sanders swatted aside free-speech arguments, saying the Texas statute prohibiting the unauthorized practice of law is "content-neutral" because it doesn't target the expression of any particular opinion. The publishers of self-help legal guides don't agree. "Nothing could be less content-neutral than doing self-help law," says Stephen Elias, associate publisher at Nolo Press, a privately held Berkeley, Calif. book and software company that publishes WillMaker, Small Business Legal Pro and other self-help guides.

Nolo, which fought its own battle against the California legal establishment in the 1970s for publishing do-it-yourself divorce kits, is under investigation in Texas on suspicion of giving too much advice. Nolo has asked the Texas Supreme Court to force the Unauthorized Practice committee to divulge the details of its probe, such as which Nolo software titles are being investigated and who, if anyone, filed a complaint. So far no information has emerged.

Strictly out of sympathy for Mark Ticer and his friends, we'd like to offer a bit of advice about how to enforce the unauthorized-practice rules. This is a big job they are tackling. Halfway measures won't work.

- Outlaw Intuit's TurboTax and Kiplinger's TaxCut, the immensely popular tax preparation programs. For the money, they give better advice on tax law than you get from a tax lawyer.
- Search people at the border. Someone driving in from Oklahoma could be carrying a diskette.
- Route all Internet traffic through the governor's office for inspection. ■

How do you make good money off a commodity business? You complicate it. Watch Ecolab's Allan Schuman at work.

The art of soap selling

By John Gorham

ALLAN SCHUMAN is in the middle of his pitch. "Here we have the solid soap that goes into the machine," he says in his Bronx accent, explaining a soap dispenser for a commercial dishwasher. "We put this electronic gizmo computer on top of the thing, and it tells the customer how long the machine is on, how much soap is being dispensed, how hot the water is, are you using too much energy?"

Schuman pauses. "This is a very simple business. So we have now complicated the hell out of it."

As chief executive of Ecolab in St. Paul, Minn., Schuman sells detergents and other cleaning products to the kitchens and laundries of hotels and restaurants. This institutional operation accounts for about 40% of the company's $1.9 billion in estimated 1998 annual sales but about 50% of its operating profits. The remaining, less-profitable revenue comes from an assortment of services, including pest elimination, food-factory sanitizing, janitorial work and industrial laundries.

If you look at commercial detergents as just a bunch of chemicals, you have a commodity business on your hands. But Schuman, 64, sees his company as selling not merely chemicals but solutions to cleaning problems. Indeed, Ecolab's soaps are often more expensive per pound than competitors'. But soap costs are just 6% of the total cleaning expense in a typical operation. Energy, labor and damaged linen and dishes are far bigger items. Ecolab gets premium prices because it saves customers money in these other areas.

Ecolab's Allan Schuman in his "office"

Who says soap is a humdrum business?

John Orobono, vice president of purchasing and distribution at Aramark, a huge managed-services business, is an avid Ecolab fan. Aramark uses 150 different Ecolab products, everything from hand soap to laundry softener to rinse additives. Automatic measuring systems combine chemical concentrates with water and dispense the stuff, eliminating the need for employees to measure the amount of chemical themselves. "Is somebody else's product cheaper?" Orobono asks. "To us it doesn't matter. It's not about cost per pound. It's about cost per use."

You can't argue with the results. Ecolab's net income has nearly doubled, from $81 million in 1993 to an estimated $153 million in 1998.

Ecolab started out in 1923 in a St. Paul garage as Economics Laboratory. It sold powdered and liquid detergent to restaurants, hotels and consumers, eventually developing a winner in Electrasol dishwasher detergent. But that brand was sold in 1987 when Netherlands-based Benckiser bought Ecolab's consumer business. Schuman, who signed on as a junior salesman in 1957, worked his way up the institutional side of the business.

In 1981 Ecolab scientists developed solid detergent concentrates for laundry and dishwashing machines, along with the dispensing mechanism. One of Schuman's accomplishments was to quickly recognize that the new product—which was more cost-effective and easier to use than liquid or powdered detergent—would be a hit with chain restaurants and hotels.

No muss, no fuss. Who cares about the price of the soap if you can save on labor? Ecolab supplies detergents and rinses to 35% to 40% of all the institutional facilities in the U.S. that serve food, according to PaineWebber analyst Robert Ottenstein. The closest competitor in the U.S., Unilever's DiverseyLever, has a 10% to 15% share.

Schuman recently began offering pool and spa care products, kitchen equipment repair service and water treatment chemicals for heating, ventilation and air-conditioning systems. He has also begun supplying soap and waxes for the fragmented car wash business. To bulk up that business he recently agreed to buy Pennzoil-Quaker State Co.'s Blue Coral Systems. "A car wash is a large dishwashing machine. Bigger pumps, bigger motors, bigger nozzles," says Schuman. And maybe a bigger invoice.

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Let's make things better.

Andersen Consulting is not content to be a mere advice-giver o
a body shop. It wants to own your company's digital future

THE MESSIAHS THE NETW

"The future is already here. It's just unevenly distributed."

This sentiment, cribbed from science fiction writer William Gibson, is both dogma and sales slogan at Andersen Consulting. The firm's 1,250 million-dollar partners and 64,000 minions have built a $10-billion-a-year business in pursuit of it.

In the 1990s Andersen's experts have grabbed an unevenly large slice of the future by overhauling the digital plumbing of 5,000 clients. Now they want to get a bigger share by taking control of your data and telling you how to run your business in a New Wave world where everything—workers, customers, suppliers, partners, gadgets, databases—is connected to everything else.

The Andersenites hope to construct much of this virtual ganglion. They want to buy stakes in businesses linked by it and collect tolls on transactions that traverse it. Their aim is to dictate the digital revolution and thrust it upon their corporate clients—and charge up to $700 an hour, per partner, for the disruption.

Should you let them?

Andersen sows equal parts hope and fear in planting these ideas with customers. "The globe is littered with companies that didn't make it," warns Andersen's managing partner and chief executive, George Shaheen, preaching apocalypse. "The changes coming in the next ten years threaten everyone—including us."

Shaheen says, ominously, that only one in three chief executives of multinationals fully understands how this revolution will roil the future. O ly one in ten has a clue about e-commerce, ano er top Andersen partner says. And the rest? "They'r scared to death," Shaheen says. His unspoken point: Yo can avoid getting left out in the uneven distribution of th future—if you hire us and do what we tell you. Ignore u at your peril, because we're working with your rivals, too

The Shaheen message merits attention, for he has eng neered extraordinary, fivefold revenue growth in th decade since taking over Andersen Consulting and split ting it off from its older and dowdier partner, the Arthu Andersen accounting firm. (The two are locked in a nast divorce, bickering over the consulting side's wealth an competition between them.)

Shaheen is 54, lean and self-confident to a fault. H bluntly says he has "reinvented" consulting and reduce McKinsey & Co. to a niche player. He contends IBM is n longer even a technology company—it must compete o Andersen's turf. Driven and scrappy, he embodies Ande sen's aggressive style—and what competitors call arro gance and obstinacy.

The swagger has helped make Andersen a powerhouse in information technology in the 1990s. Whatever you call this part of the IT business—

Managing partn
George Shahee
On the edg
of a revolutio

By Robert Lenzner and Joanne Gordon

consulting is too narrow a term, services too broad—it has been on a tear, and Andersen owns one of the biggest chunks of it.

Companies have spent billions in recent years on "enterprise software" from SAP, Oracle, PeopleSoft and the like. And for every dollar clients have put up, Andersen bills another $4 to $10 customizing it, installing it, lashing it to other systems and training people to use it. If software were simple, Andersen would be out of work.

Its systems are embedded in banks, utilities, manufacturers, hospital chains, even the Deutsche Borse. One setup lets 7 million Spaniards swipe smart cards at computer kiosks to tap their social security accounts. A Harley-Davidson system lets a biker pick out a new muffler on-screen, hear how it sounds and access the dealer of his choice. Andersen wares let Glaxo Wellcome push new drugs out of the lab one-third faster, and let the new Iridium network track and bill calls around the earth.

What's that worth? Andersen's billings have grown 20% a year, five years running, to $8.4 billion last year. Of that sum, the profit for the firm's 1,250 partners came to north of 20% of revenues, or at least $1.6 billion—almost $1.3 million apiece. Andersen professes to have no plans to go public, but if it did it might get valued at $20 billion.

But abundant obstacles stand in the way of keeping up Andersen's robust growth. If the economy slides into global recession, IT spending will be among the first things to get cut. Once-torrid growth in enterprise software has slowed sharply. A raft of pesky upstarts ply a new pitch: Why pay techies to install new software when you can rent it from us over the Internet? *(See p. 102.)*

"We're going to hit a wall," Shaheen frets. "That's wh I'm looking to reinvent Andersen once again and red fine the consulting of the future."

This grand scheme relies on exploiting the Internet proliferating hooks into businesses and consumers. Wit help from a Microsoft and an AT&T, Shaheen muses, "w

CLOSE-UP

Taking Over DuPont

A YEAR AGO DuPont's computer systems were an incoherent mess and needed an overhaul, but the chemicals giant needed to focus on its core business.

DuPont wanted a single, tied-together system to track orders, inventory, billing and collection and to accommodate exhaustive rules for safety, health and the environment. But "we didn't have the experience, people or money to build from scratch," says Cinda Hallman, a senior vice president at DuPont.

In came Andersen Consulting and Computer Sciences Corp. (CSC), taking control of the system for ten years at a cost of $4 billion. Andersen's take: at least $550 million.

Andersen hired 400 DuPont employees, trained them and moved them into a colorful, open space to encourage teamwork. When DuPont needs to adjust billing for the euro, boost reporting for environmental regulations or adopt a tax code change, Andersen and CSC programmers go to work.

The firm meticulously measures response times and displays the results. Andersen has cut the cost of maintaining DuPont's old system by more than 20%. It responds to and solves more than 95% of DuPont's systemwide problems in less than four hours.

The outsourcers keep DuPont's "plumbing" humming 24 hours a day, seven days a week. DuPont, meanwhile, takes care of its real business. –R.L.

HEAD TECHIE JOE CARTER: A clear view of the future from Palo Alto.

Cool stuff

FIRE YOUR ASSISTANT, trash the newspaper, throw out your day planner. Information and computers will soon be available everywhere—on your person, in a car, in your pocket, even in your eyeglasses. Andersen Consulting's researchers tinker with electronic toys that make data more accessible than ever.

Beneath many of the ideas is a complex software "agent" called Munin, named for a mythological raven that flew around the universe each day to bring back news of the world. Andersen's agent data from the Internet o rate networks and delive anywhere, from handhel puters to headsets.

Andersen labs in Chic Palo Alto, Calif. and Sop Antipolis, France don't i the hardware, but they c create ways hardware, s and the Web can work t

The gadgets below ar sale yet (patents are pe they're sales tools to sh clients just how ubiquit personalized informatio can be. "The whole wor being turned into bits, a want to show you how t

could become a global travel company. . . . We could plan your trip to Istanbul, hire a guide, tell you where to stay and eat, even arrange daily boat trips. There's no limit, and we don't need a plant or an office to do it." Or even a phone.

Andersen just completed "Sunpeak," a vast network for Sun Microsystems, no high-tech slouch itself. The firm wiped out 40 old computer systems and rewired 60 others to link them into a single secure network. It lashes together all suppliers at one end and all Sun customer accounts at the other, tying in all employees in the middle. Now a mouse-click connects any part of this data mass to any other part.

Sunpeak will quicken inventory turnover, speed up product cycles and let Sun divine, in real time, the profit margin on every workstation it sells, says Masood Jabbar, president of Sun's computer-systems unit. "It's the foundation for 'dot-comming' ourselves. It's what the new networked economy is all about." Andersen is erecting similar networks for Nokia, Ericsson and Texas Instruments.

Nortel's Bay Networks, similarly, sells network gear on-line with Andersen's help. The firm also has a $73 million contract to do much the same thing for the Air Force, linking 100,000 maintenance workers at 200 far-flung sites for ordering and shipping parts and supplies.

These "business-to-business" links will come first; consumer systems will come later. In a few years most insurance and car sales will play out on the Web, says Rudy Puryear, Andersen's head of e-commerce. (But consumer e-commerce is harder than it looks; *see p. 124.*)

Andersen can make lots of money now, however, erecting the tech infrastructure. Shaheen says that, just as Bechtel Group built the world's bridges and dams and highways in decades past, "we will build the business processes of the electronic revolution—redesigning the marketplace, changing its work processes, retraining its work force."

That's a tall order, and some say Andersen's fervent belief in its vision of the future can rankle clients. "Andersen has to shore up its culture to be more people-client sensitive," says Bonnie Digrius, an analyst in Basking Ridge, N.J., who has advised some of Andersen's clients.

Shaheen dismisses such carping as jealousy and insecurity about the future. "There's always resistance to change. We have to see it through. Our clients

Who rules the digital domain?

Depends on how you dissect the revenue. IBM boasts the biggest services business, but most of it flows from outsourcing and maintenance. McKinsey is all strategy. Here's how Andersen compares.

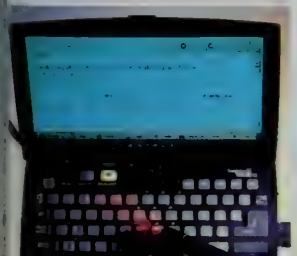
Firm	Total 1998 global revenue[1] ($bil)	Biggest division as percentage of revenue[2]
IBM Global Services	$29.0[3]	IT outsourcing (41%)
EDS	16.9	IT outsourcing (53%)
Andersen Consulting	8.4	IT development and integration (59%)
CSC	7.4	IT outsourcing (42%)
Cap Gemini	4.7	IT development and integration (60%)
Ernst & Young (CONSULTING ONLY)	4.0	IT development and integration (58%)
PricewaterhouseCoopers (CONSULTING ONLY)	4.0	IT development and integration (55%)
KPMG International (CONSULTING ONLY)	3.0[4]	IT development and integration (69%)
McKinsey & Co	2.5	Strategy and management consulting (100%)
Deloitte Consulting	1.8	IT development and integration (53%)
Booz, Allen & Hamilton	1.5[5]	Strategy and management consulting (60%)

[1]Company statistics. [2]Dataquest 1997 estimates extrapolated by Forbes for 1998. [3]30% of revenue from supporting/maintaining hardware and software products. [4]Fiscal year ending Sept. 30, 1998. [5]Fiscal year ending Mar. 31, 1999.

an be turned into bucks," says oe Carter, a partner at the Palo lto lab.

POCKET BARGAIN FINDER

ttention shoppers! Scan this mall device across a book's ar code to find out which on- ne retailers sell it cheaper and ow quickly they'll deliver. hen buy it electronically.



Today books, tomorrow Walkmans, sneakers, breakfast cereal. Wake up, retailers—consumers will never be the same.

MAGIC WALL

Cool screens on office walls detect workers by voice or I.D. badge, greet them by name and dish up useful, timely and personalized stuff like traffic reports, appointments, Web sites, tonight's grocery list and even sports scores.

INFORMATION WEAR

Wear a computer on your head. Great for factory workers, mechanics, even surgeons, who need hands free. Just speak to order parts or download data like blueprints. View them all on a mini-monitor inches from the eye.

AWARENESS MACHINE

A portable view of your world. This pocket-phone-size device displays urgent e-mails, traffic reports, headlines and appointments, all on a tiny screen. Forget to prep for a meeting? This thing even picks reports and articles off the Web and zaps them back to wherever you are.

–R.L. and J.G.

want us to have a point of view."

His brashness is the product of a guy who rose up from modest origins. He grew up with identical twin Gerald (now a group president at Caterpillar) in tiny Elmwood, Ill. At age 13 he spent Saturdays chopping up sides of beef for his father's grocery store. He attended little-known Bradley University 15 miles away, in Peoria, Ill., graduating in 1967 to join Arthur Andersen. Soon, "I became the go-to guy," Shaheen says.

In 1977 he turned a two-week assignment at Wheelabrator in South Bend, Ind. into a three-year occupation. By 1986 he had moved to Silicon Valley. In 1989 he took the top job at the consulting arm and oversaw the move to set up Andersen Consulting as a free-standing unit. These days he makes his home in Silicon Valley, often works out of New York and travels 80% of the year.

Along the way, Shaheen built a reputation as a tough and relentless operator who didn't bother to mask his combative nature. To hear him tell it: "We redefined what consulting is. We invented the future, and it was a powerful dynamic." What about McKinsey & Co.; Booz, Allen; Boston Consulting Group? "We balkanized them. They'll never catch up."

How about IBM? Forget it, Shaheen says—its "e-business" campaign proves "they're no longer a technology company. Their ethos is being eroded." But he concedes "They have a hell of a cachet."

Shaheen wants to lift Andersen to the next level b styling the firm as part operator, part venture capitalis and part toll-taker on the digital highway. It has eve become a developer of Web gadgets *(see box, p. 100)*.

A small firm in Minneapolis, PRA Solutions, serves 7 o the top 25 airlines and handles revenue accounting fo one-third of the world's airline tickets, saving $250 mil lion a year rectifying mistakes made by travel agents. Th firm's owner: Andersen Consulting. PRA takes a tiny com mission on each transaction.

Similarly, Andersen cleverly collaborated with softwar hotshot SAP to customize logistics programming for 15 o the 16 biggest oil producers in the world. And it investe just $4 million in 1995 for a 10% stake in a nobody tha made software for marketers. The payoff: $700 million i new work and a 6% stake now worth $215 million. Th nobody grew up into a software star: Siebel Systems.

Andersen put up $25 million to overhaul Ontario Canada's welfare system. Its annual fee will be substantial portion of expected yearly savings of $25 million. Similarly, Andersen built a billing system fo Pacific Bell and Sprint in the late 1980s—and has sinc tailored it for others. Now the package handles billin

Simpler software + the Internet = fewer consultants

By Josh McHugh

ANDERSEN CONSULTING'S director of strategy, Peter Fuchs, loses sleep worrying about how to preserve the biggest piece of Andersen's business—the $5 billion a year it takes in for installing, customizing and supporting software made by SAP, PeopleSoft and the like.

Michael Seckler and John Alberg, a pair of 26-year-old Williams College graduates, may not be the stars of Fuchs' nightmares yet, but they're working on it.

Their startup, Atlanta-based Employease Inc., is one of a spate of new outfits with a deceptively simple sell: Why buy computers and pricey programming and pay a bunch of consultants to tailor it? Just rent the service from us over the World Wide Web.

The handful of handsomely funded startups *(see opposite)* harks back to the 1960s and the days of time-share computing. Back then, room-sized computer systems were so expensive that midsize businesses simply rented computer time from a supplier.

This time around workers at the client company can simply use a Web browser to tap into the remote computer power. The "Netsourcer" takes care of the hardware and software, managing the unpleasant bits of the programming for a flat fee and renting the useful functions and data to small companies via the Internet.

"This is a fundamentally different way of doing [corporate software]," Seckler says. "We're less akin to PeopleSoft than we are to E Trade and Amazon."

The Net threat could one day have a severe impact on Andersen and its ilk. For now, enterprise software from SAP and others is frustratingly complex. Andersen's main worry: that someone will simplify the programming so much that its armies of high priced consultants won't be needed.

For now, Andersen clients

CONSULTANT-KILLERS: John Alberg and Mike Seckler of Employease.

for 10 of the top 20 telcos in the world.

Shaheen is going back into the grocery trade he worked in as a teenager. Andersen hopes to organize the nation's food producers, including Coca-Cola Co., Sara Lee Corp., Kraft Foods and Nabisco, into a national delivery system over the Web. It would eliminate middleman wholesalers and cut paperwork for orders and billing—and perhaps provide Andersen with a tidy little vigorish on every order.

Toll-taking and risk-taking will be a growing part of the Andersen future. Currently Andersen handles outsourcing of data processing (albeit it is much smaller in this segment than Electronic Data Systems and IBM) and it tells clients what to do (competing with McKinsey, Boston Consulting and others).

Andersen's slick promotion and sometimes high-handed approach have gotten it into scrapes. Its "aggressive marketing unduly raises client expectations beyond what it can deliver," a recent Gartner Group report says. Medline Industries, a $750 million (sales) medical supplies company in Mundelein, Ill., is suing Andersen over an $8.6 million contract that went awry. It alleges that, after faulty data and other major snags emerged, Andersen threatened to pull out unless Medline forked over another $6.7 million, which it did. The case is pending.

"Andersen sells bigger teams than are needed. Small is beautiful," says Laurence Holt, who runs tiny rival Quidnunc, which dispatches five-person teams to give e-commerce advice to Goldman, Sachs & Co. and others.

But traditional consulting, focusing on strategy, provides direction without giving a client the technology to execute it. And executing it can require a lot of bodies. "You can have the most exotic computer system in the world, but if you've got people at the front of it and the back of it and the side of it who don't know what to do, that thing will crater in a heartbeat," Shaheen says.

It helps the partner-owners of Andersen that the hired hands are billed at a high rate and that there are a lot of them. These worker bees outnumbered partners 30-to-1 when Shaheen took over; these days the ratio is 50-to-1. Last year Andersen hired 15,000 newcomers *(see p. 104)*. They are smart, but there are not many mavericks among them. They are willing to march in lockstep, using repeatable methods to get quantifiable results.

The firm's Knowledge Xchange, an on-line database spanning 1.5 million pages, lets Andersenites read up on the fixes and gaffes committed in every project the firm has done in the 1990s.

"Andersen is much more structured and methodical, which is both a strength and a weakness," says Carol Lindstrom, an 18-year veteran who defected to Deloitte Consulting in 1993 to build a rival service. Andersenites "aren't encouraged to be creative in their early years. You're given a series of tasks, and approaches are all laid out for you," she says.

The rigidity is fine by some clients. "A high level of discipline is necessary to overlay a mosaic of change," says Cinda Hallman, a senior vice president at DuPont, a big Andersen account. "Andersen focuses on productivity.

put up with installation projects and upgrades that can drag on for years and cost $100 million or more. For every dollar they spend on SAP software, Andersen bills another $4 to $10 for making it work.

At Employease, Seckler and Alberg don't bother trying to retrofit popular internal systems for Internet delivery. They write simple, Web-based programs handling health and insurance plans. The software runs on top of a massive central database and is geared specifically for the Web.

"You don't need to worry that these 50 users are on version 3.1, but those hundred are on 3.3," says Alberg. "There's only one copy." The company's setup fee starts at $350 per employee, then $3 to $4 a month for each employee. That's not a typo.

And no consultants needed.

A variety of newcomers and incumbent software companies hope to put consultants out of work. Among them:

Corio, Redwood City, Calif.: Internet portal Excite, Inc. decided to let Corio manage the costs and headaches of installing and maintaining PeopleSoft's financial software programs for a flat monthly fee. The connection: Venture capital firm Kleiner Perkins Caufield & Byers is sugar daddy to both companies. Also delivers PeopleSoft services to telecom equipment maker Clarent.

USinternetworking, Annapolis, Md.: Raised an eye-popping $95 million in venture funding, now in registration to go public. U S West uses USI as an outsourcer to deliver and manage sales force automation software by Siebel Systems, another major investor. Also serves up heavy-duty applications by PeopleSoft and Microsoft via secure, Internet-based communications.

Impresse, Sunnyvale, Calif.: Another member of the start-from-scratch school. Writing manufacturing applications specifically for Net delivery. A big funder: Kleiner Perkins.

CLOSE-UP

Building Iridium's Infrastructure

THE POWER TO MAKE a wireless call from anywhere on the globe was the dream of Iridium. The venture, 20%-owned by Motorola, with 18 telecom partners around the world, has 66 satellites orbiting the earth and offices in 15 countries.

That's a logistical nightmare. A traveler from Chicago makes a call from Istanbul to Paris. Iridium must track the call's length, account for local costs in various currencies, bill the caller and distribute the proceeds to the right overseas networks. Millions of times a month.

Aspirin, please. Andersen built the underlying software and helped decide how to service and bill customers. It trained staffers in how to deal with callers from Australia to Canada. It designed billing to capture each call, ID callers, collect money and divide it up.

Andersen customized and linked some 100 software packages. It built a database to sort calls and send details to regional offices. Local computers convert each call's cost to local currency and adjust for exchange rates and local taxes. After two years of work the system went live Nov. 1. Iridium expects to have 4 million to 5 million subscribers by 2002. –J.G.

They measure, they get. They measure, they get. It's continuous—and it's the discipline we needed at DuPont." *(See box, p. 100.)*

Andersen has done similar work for J.P. Morgan and Ryder System, as part of a push into the outsourcing business. Shaheen hopes to raise Andersen's outsourcing revenue, now at only $1.2 billion, or 14% of 1998 revenue, to roughly 40% of Andersen's business in five years.

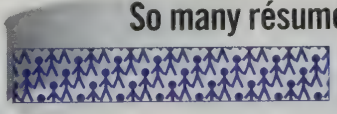
Even the outsourcing push, however, carries risks. To win the DuPont business, Andersen hired 400 techies from the client's payroll. To land more business, Andersen will inevitably have to hire more people. What if Andersen's costly team efforts could be replaced by the Internet?

Peter Fuchs, the consulting firm's director of strategy, says the programs Andersen integrates may someday be sold cheaply and smoothly over the Web. One day, he suggests, even the most sophisticated enterprise programs might automatically integrate themselves like a Lego set, no longer requiring legions of billable programmers to fit them all together.

George Shaheen says Web delivery of sophisticated software could be ready in three years and that Andersen has to prepare for it becoming a "Net sourcer" just like the startups. That could mean someday obliterating the firm's pricing model and reducing the upside it enjoys from having thousands of staffers toiling endlessly at customer accounts. He says Andersen has little choice because others will do it, too.

But how could Shaheen & Co. talk any other way? Andersen Consulting tells all its clients that power resides in the network that technology's big rewards come with big risks, and that a company can't embrace the future without being willing to destroy some of its own past. Shaheen runs his business the same way. ■

So many résumés, so little time



Last year 3 million résumés are received from campuses, the Web, by mail and referral.

1.2 million not from new college graduates are scanned into a national database.

200,000 get 15-minute interviews with a company recruiter.

100,000 prospects make the next cut, getting called back for two one-hour interviews.

A total of 20,000 candidates get job offers. Only 15,000 accept and start life at Andersen.

But 10,000 people leave the firm (15% turnover). So net growth is 5,000 new jobs, or about 8% of the work force.

GRAPHIC BY STEVE HART

Seeking 15,000 George Shaheens

THREE MILLION résumés poured into Andersen Consulting's 137 offices worldwide last year. From this paper mountain Andersen sifted out 15,000 hires with the qualities George Shaheen wants: diligence, drive, brains and teamwork.

Andersen devotes 900 recruiters to the task—and 250,000 hours of interviews. Only 200,000 prospects got initial 15-minute meetings. The firm offered 20,000 people jobs; 75% accepted. They included 6,500 new college graduates starting at $30,000 to $50,000; 1,000 with M.B.A.s and 1,500 with other postgraduate degrees. Andersen hired 6,000 from other companies.

The preferred Andersen profile? Carol Meyer, partner in charge of human resources, guards that list like Coke's secret formula. "We took a step back and asked, 'What makes George Shaheen and other top partners successful? Was it board scores or something else?'" she says.

Andersen identified eight traits, but she will name only two: critical thinking and being a self-starter. College placement directors and other Andersenites cite a few more.

A midwestern work ethic is more important than a Phi Beta Kappa key. Grades can be a 3.2 out of 4.0. The ability to juggle school, extracurricular activities and jobs to pay for college is critical.

Diplomacy figures in there. Andersen asks candidates to relate the way they resolved a personal conflict.

A willingness to travel far from home, for months at a time, is critical. Any hesitation about being stuck in Manila for two years, flying back to see family only rarely, can be a disqualifier.

Students need the patience to learn the painstaking steps necessary to master technology and the Andersen process. They must display evidence of teamwork. If you want to score well at that interview, use "we" instead of "I" to explain a past work experience.

Who gets rejected outright? College kids who didn't do their homework on Andersen, more experienced workers whose salary expectations are too high.

Résumés that don't come from campus referrals—1.2 million last year—go into a database, routed to regional offices and kept alive for six months. If a local partner needs to hire programmers for a new client, a search can sift out "C++" in a list of programming languages used.

Andersen targets 60 nationally known U.S. schools, including Cornell and Harvard but also distinctly non-Ivy campuses such as Northwestern, the University of Illinois and tiny Bradley University in Peoria, Ill., Shaheen's alma mater. At Bradley, Shaheen pops into the placement office to make sure his company is getting its share of top grads. At Northwestern's Kellogg Graduate School of Management, Andersen sent in 30 people to woo 1998 M.B.A.s, nabbing 13 from a class of 642. McKinsey did better with 37.

Andersen spends $550 million a year to train and retrain employees, mostly at its 151-acre St. Charles campus two hours outside Chicago. Full-time teachers and partners drill new recruits and veterans on the structured, step-by-step approaches to project management, problem-solving, software implementation, even how to talk to clients. A job at Andersen can be like joining the military—but with a lot more travel.

–J.G.

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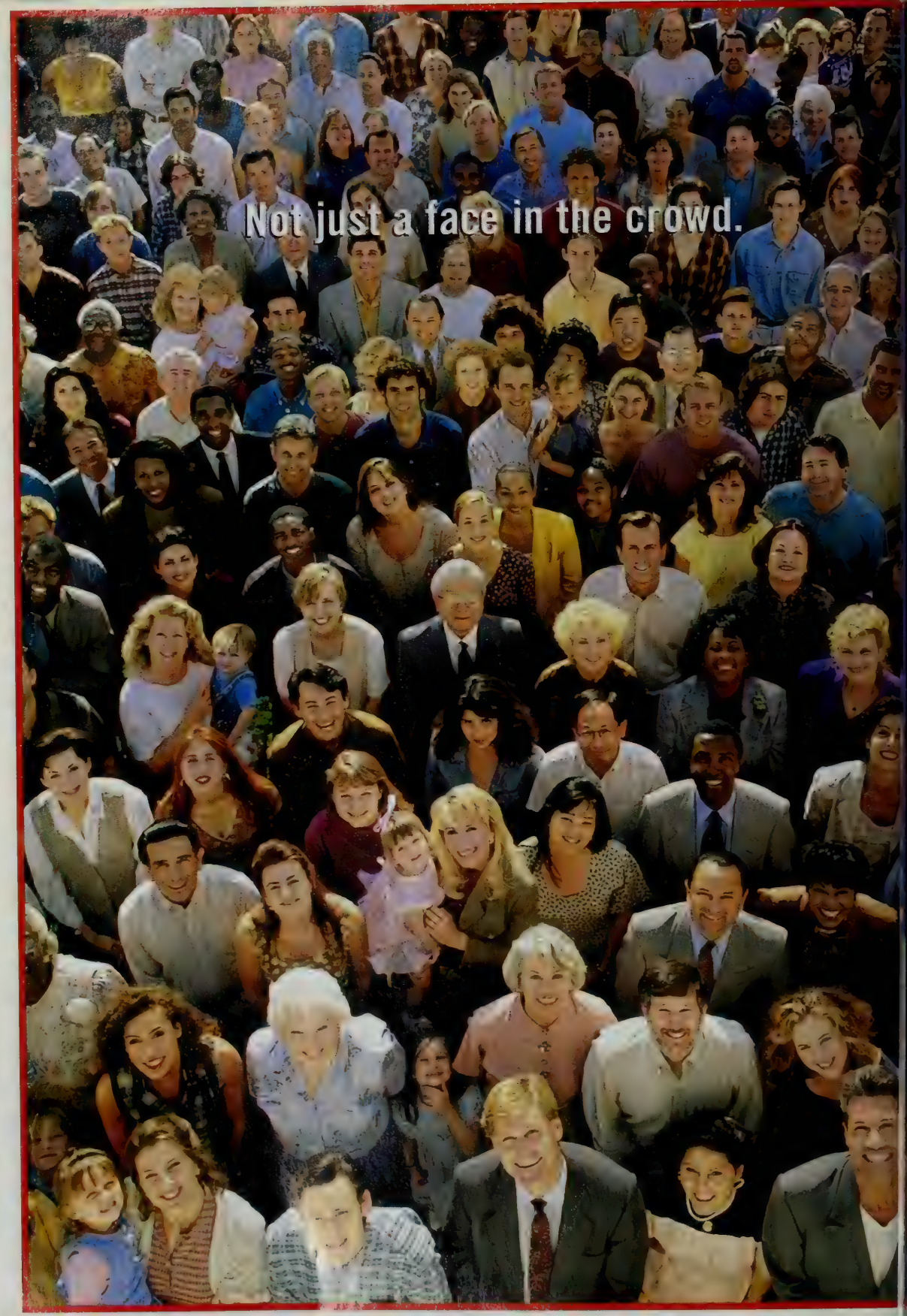
Not just a face in the crowd.

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How would you like to be the operator of a Web portal in a country that throws overly active Web users in jail? Charles Zhang skillfully manages the role.

Search fox

By Andrew Tanzer

ADRIAN BRADSHAW/SABA

Sohu.com chief Charles Zhang **"Two steps forward, one back."**

DOES BEIJING LOVE THE WEB or hate it? In January an entrepreneur in Shanghai was sentenced to two years in prison for supplying e-mail addresses in China to a prodemocracy, U.S.-based Chinese on-line newsletter. Two hackers recently convicted of electronically stealing money from a bank will likely be dispatched with bullets to the back of the head. The government is trying to tighten control over Internet cafes and bars, where students and many other Chinese log on for the first time.

And yet the Internet is growing explosively in China, in part with government encouragement. Jim Jarrett, president of Intel China, notes that the number of Internet subscribers multiplied from 60,000 when he arrived in the country in September 1996 to 2 million at the end of last year. MIT's Nicholas Negroponte, whose *Being Digital* is a bestseller in translation in Chinese, predicts there will be 10 million Internet users in China by next year.

If anyone has a finger on the somewhat bewildering development of the Chinese Internet, it is Charles Zhang, a scholarly entrepreneur with a doctorate in physics from MIT. A year ago the Beijing-based Zhang, now 34, launched Sohu.com, a Chinese-language search engine and directory. Sohu, or "search fox," has quickly become mainland China's most popular Web portal and destination, currently attracting 120,000 visitors a day and generating 600,000 to 700,000 page views.

Zhang says Sohu broke even in its first year, raking in about $1 million in revenues from advertisers like Ericsson, Nokia, Intel and Dell. Since 1996 Zhang has raised more than $2 million in venture capital from investors including Negroponte, MIT Sloan School professor Edward Roberts, Intel, Dow Jones and IDG. He'll probably take his Beijing-based company public within a year or two on Nasdaq or the Hong Kong stock exchange.

After Zhang returned to China from the U.S. in 1995, he tried his hand at various activities like developing Web sites for Chinese companies. But he paid a lot of attention to what Wired Digital, AOL and Yahoo were doing back in the U.S. "I learned that you don't have to pay for information," he says in his flawless English. "In China nobody had even heard of the ad business model."

As Zhang added content to his expanding Web site in China in 1997, he noticed that the bulk of the traffic was going to the directory, or guide with links to the rapidly growing number of Chinese-language Web sites. So in February 1998 he refocused and launched Sohu as a Chinese search engine and directory. It now has 100,000 links, about 70% of them to Chinese Web sites, and the rest to English. Over the past year he has steadily added his own Chinese-language content, such as cobranded business news channel with Dow Jones, a Web site design guide from Wired Digital and a sports channel with China Central TV. The most popular sites: entertainment and computers.

The Chinese government has no investment in Sohu, but clearly Zhang is an entrepreneur who works within the system. "We behave as good citizens, so we censor ourselves," he explains. "If you're too confrontational, it's counterproductive." He describes China's progress this way: "Two steps forward and one step back is basically going forward overall."

Zhang notes that in the past year the core of Internet users has shifted from academics and "black guests" (read: hackers) to young urban professionals. His main gripe is the high cost of Internet access—typically $5 an hour—from access providers who have to lease lines from a government telecom monopoly. The telecom infrastructure is also lagging badly behind demand. But he says the government now understands the bottleneck and is proposing to break up the monopoly this year.

This intense, earnest man-in-a-hurry describes himself as a doer and a builder. His dream, he says, is to build Sohu into "the passport of Chinese into the digital age." But Zhang is also sober and realistic enough to know that he will face fierce competition from Yahoo and many others. "In this business you cannot rest. I'm paranoid all the time."

That's not a bad attitude for an entrepreneur—especially one in Beijing. ■

BOMBAY SAPPHIRE MARTINI. AS CRAFTED BY STEPHEN DWECK.

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Auto parts supplier Donnelly Corp. tried one faddish management theory after another. One of them is finally working.

Looking for nirvana

By Terril Yue Jones

HERE'S A GOOD WAY to smear your image. Bring in a series of Japanese-inspired consultants, give them free rein—and don't pay attention to what they're doing. That's what happened to Donnelly Corp., the world's largest manufacturer of automobile mirrors. How chaotic was it? On more than one occasion Donnelly chartered planes and helicopters to make its frequently late deliveries. Factory floors were so cluttered that a company car once got lost amid the debris and was reported stolen.

BLACK/TOBY

Smalley and Baumgardner
For Donnelly Corp., they are the fairest of them all.

In short, Donnelly became, from the 1980s through the mid-1990s, the gang that couldn't shoot straight. "Like Sunday shoppers, they've gone through years and years of chasing basically every management fashi[illegible]," says John Shook, director of lean manufacturing programs at the University of Michigan's Japan Technology Management Program.

Faced with the loss of business from Honda and Toyota, Donnelly finally got religion in 1996. No more piecemeal, half-cocked consulting ideas. From top to bottom it instituted a lean production system borrowed from Toyota. Yes, it's another trendy strategy. But it seems to be working. Defects have plummeted, morale among employees has surged and earnings are improving. The lesson: The most heralded factory systems won't work unless management keeps a tight watch.

If you have a car, chances are the rearview mirror was made by Donnelly: It has 95% of the North American market for that item. Based in Holland, Mich., Donnelly also produces fixed windows, interior lights, door handles and overhead consoles.

For years this now-94-year-old firm was greatly admired for giving employees wide latitude in decision making. But starting in the early 1980s production quality slipped in the face of intensifying Japanese competition. Thus began Donnelly's often disastrous experiments with changing its factory floor.

The first experiment, beginning in the late-1980s, instituted a General Motors program called "GM Synchronous." The idea, similar to Toyota's "just in time" system, was meant to ensure that materials flowed smoothly through plants. Good idea except that Donnelly failed to supervise it, so that parts of the plants followed it and others didn't. Blown deadlines and defects remained high. GM, unhappy about Donnelly's pricing and defects, took most of its business elsewhere.

Enter Honda, which wasn't too pleased with Donnelly's nagging quality problems either. Donnelly shook up manufacturing again, introducing a Honda system known as "best practices." The outcome was less than best: Paint jobs on the backs of mirrors too often cracked and bubbled.

In the early 1990s Donnelly instituted yet another dandy plan: "empowerment." Teams were encouraged to work independently to arrive at creative solutions to problems. A fine notion, but the result was chaos. Workers on one paint shift, for example, would adjust the machines to increase their yield—only to foul up the strict quality control required for all three shifts. "You're not supposed to twiddle the knobs yourself," recalls Chief Executive Dwane Baumgardner.

Then, in 1993, Donnelly hired a lean manufacturing specialist who started scores of vigorous but largely unsupervised *kaizen* [continuous improvement] projects all over. "Death by kaizen," Baumgardner puts it.

Finally, three years ago, Baumgardner brought on Art Smalley and Russ Scaffede, two former Toyota managers. What they found was "a pretty traumatized organization" and "extremely skeptical workers," says Scaffede, the 49-year-old senior vice president of global manufacturing.

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BUY INTERNETS!

The Dines Letter has been very bullish on the Internet group for several years, and their three favorites have been *America Online, Amazon.com* and *CMGI* !!

The Dines Letter describes the Internet as "the greatest invention since the wheel, that will redefine every business on earth." No portfolio should be without an entry in this red-hot group, especially buying the inevitable pullbacks. But which ones? Let them send you their latest "Recommended Internet List," **urgently**! Ignore the pessimists who've mistakenly called them "overpriced," *all the way up*! This is not a "mania" or "bubble"; the Internet is real!

1) It is very difficult to detect the winners in a field that is so new without the guidelines of established sales and earnings available to Security Analysts in other fields. Yet, The Dines Letter's favorites have been *America Online* (recommended at 11) and *Amazon.com* (recommended at 9-1/2), which subsequently soared. So let them send you the ones they believe will do well **next**! Buy their "Recommended Internet List" on every decline! Get their list and follow them!

2) Mr Dines was the only Security Analyst in the world to have predicted the Asian currency crisis – on television, radio, the media and in The Dines Letter – and it is crucial that all investors therefore discover what they predict next. The Dines Letter's old predictions of "The Coming Competing Currency Devaluations" have arrived, as predicted, but why were they viewing this as bullish for Wall Street? Might it be that frightened overseas capital was pouring into the US dollar, bonds, utilities and familiar blue-chips such as IBM, Merck, GM and Philip Morris, driving them in a stampede distantly above traditional, value-based Security Analysis, and which could only be understood by the principles laid out in Mr Dines' third and final business book *Mass Psychology*?

3) The Dines Letter last September daringly predicted "a blistering year-end rally, spearheaded by Internet and telecom stocks," only five business days from the Dow's hourly bottom! Find out whether a new "Sell" has been flashed by them yet!

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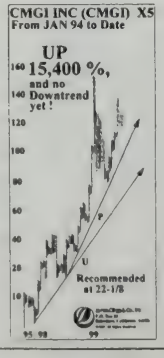

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They also saw plants (Donnelly ha 15) dotted with conflicting work place strategies. "You'd find lea management here, but five meter away it wasn't happening," say Smalley. That had to change, so th pair devised a companywide plan implementing methods they ha learned at Toyota. They set clea standards so that best processes ar identically repeated to ensure quali ty. Straight assembly lines wer changed to U-shaped to save spac and require fewer people to do th same task.

This time around, everything i monitored and documented. Bi matrix boards vividly follow th progress of each team's defects or los work time. Says Jim Brodie, manage of the two factories in Holland: "If it' important we make it visible."

"Like Sunday shoppers, they've gone through years and years of chasing basica every manage- ment fashion.i

Donnelly's 5,500 workers still have the freedom to suggest changes, but they can't implement them on their own yet. One example: After viewing a videotape of their injection-mold workstation, a group of four employees devise a way to get the job done with onl two. This is a nonunion plan so there were no work rules to pre vent the productivity gain. Donnell is creating a management structur that monitors process changes t impose uniformity—and preven backsliding.

The changes are showing up i earnings. Baumgardner says profit fo the second half of fiscal 1999, endin in June, will exceed analysts' projec tions of 65 cents per share. Sales fo fiscal 1999 are estimated to be mor than $800 million, exceeding the pre vious year's $763 million.

And since 1996 quality has finall become priority one: Defects hav fallen from a steep 1,290 parts pe million to 92 last year.

How far has Donnelly come? La year it received a GM supplier-of-th year award. ■

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-Year	4/2,262	5/748	4/2,262	4/490	5/2,262	5/2,262
-Year	4/1,515	5/525	4/1,515	4/286	N/A	N/A
-Year	4/769	N/A	N/A	N/A	N/A	N/A

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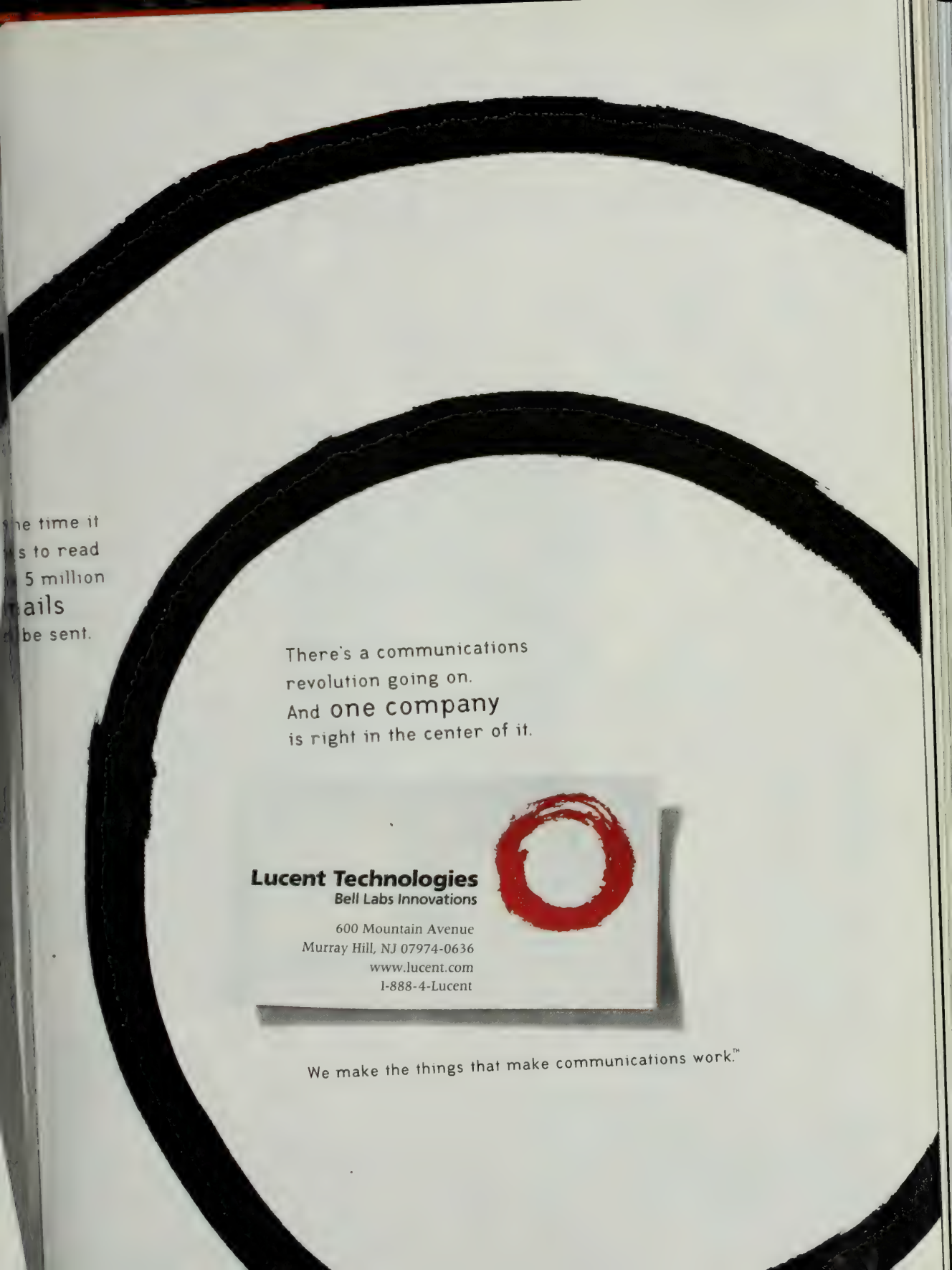
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Video on demand was a flop. But what about company meetings on demand? There could be an interesting business here.

Infomercial.com

By Adam L. Penenberg

TALK ABOUT BLUSHING: Victoria's Secret staged one of the first live fashion shows on the World Wide Web on Feb. 3. It featured lanky models in skimpy lingerie lurching across computer screens in grainy, fitful images that millions of frustrated gawkers couldn't even view.

The red faces were worn by the brass at Broadcast.com, the company that wired up the on-line skinfest. So many Web-watchers tried to tune in—some 1.5 million succeeded—that Broadcast.com's network jammed.

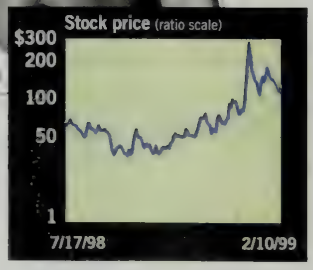
It was a revealing look at just how lame real-time video is on the Web. But this Dallas-based company has ridden a wild wave of Internet euphoria. Despite having only $22.4 million in revenue last year (and earnings of minus $15 million), Broadcast.com has a market value north of $2 billion. The stock began the new year under $100, shot up to $285, fell back to the $100 range, then cleared $130. All within about a month.

Broadcast.com talks a good game about video on demand. But for now, quality video over the Web is but a pipe dream. Maybe that's not what the world needs, anyway (do you really need to watch a TV movie at 8:15 rather than 8:30?).

Lingerie shows aside, the company isn't really about entertainment. It has a serious, utilitarian purpose that many investors don't know about: providing companies with real-time video of shareholder meetings, speeches by executives and infomercials. The clientele simply tune into the Broadcast.com Web site, using RealPlayer software and a desktop.

Think of corporate broadcasting as a way of offering businesses their very own TV stations. A chief executive could stoke employees over their PCs; a company's sales force could gather without breaking the travel budget.

STEVE EICHNER/WOMEN'S WEAR DAILY



Broadcast.com's secret: It's been fashioning a new business.

Never mind video on demand—how about infomercials on demand? For now, at least, that kind of audience can tolerate the color bleeds and fuzzy audio you get out of a conventional telephone line and a 56k modem.

AT&T, Bell & Howell and Robertson, Stephens & Co. relied on Broadcast.com to cybercast shareholder meetings, for instance, boosting attendance. Broadcast.com set up a Web-based corporate vid network for IBM, offering channels of news and informati to employees. It exclusively hand earnings calls for Nasdaq 1 companies.

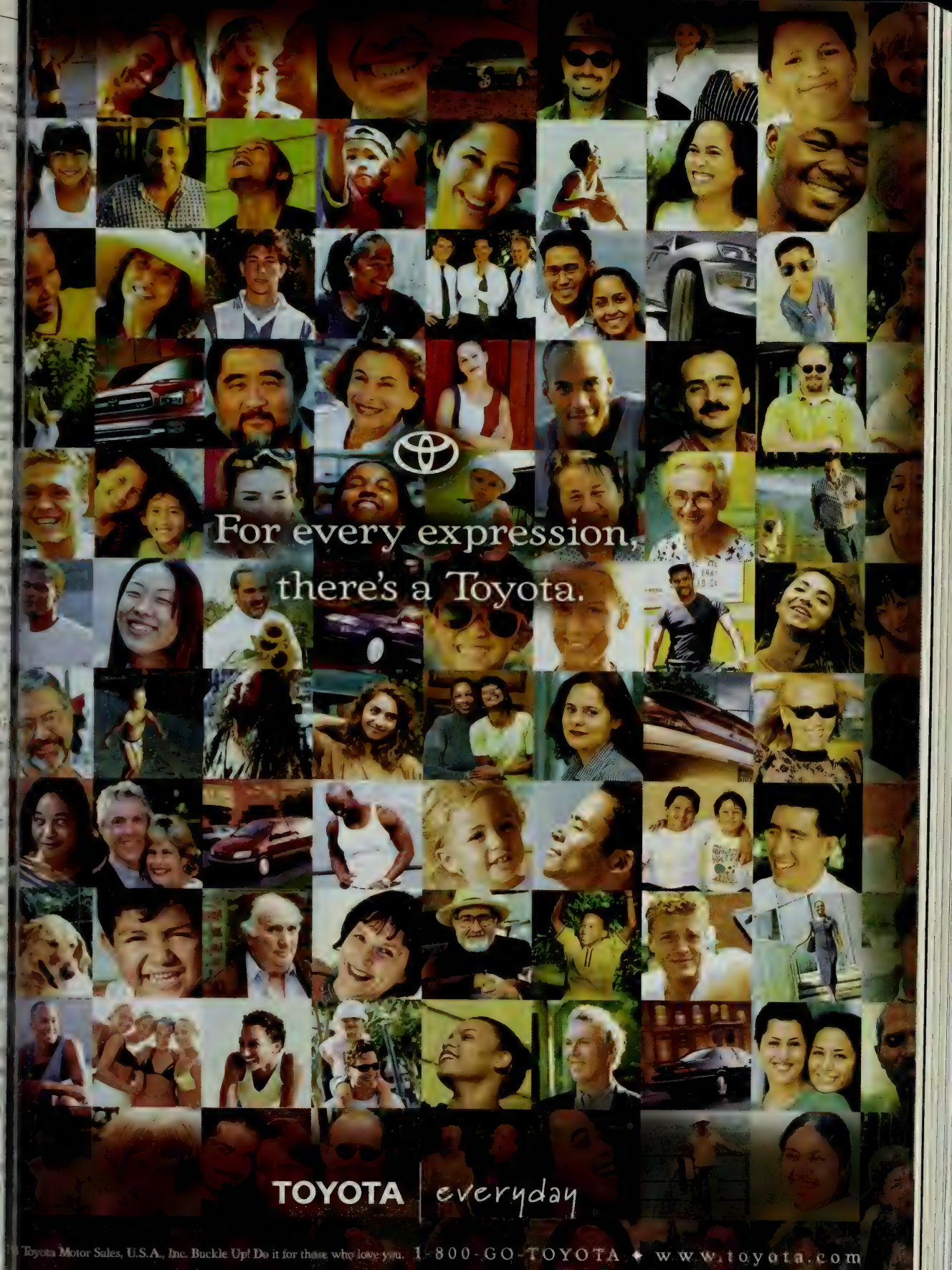
"Every company is a potential c tomer for us, because every compa can benefit from real-time commu cation," says Broadcast.com's pre dent, Mark Cuban. Corporate s vices brought in almost $5 million the 1998 fourth quarter, nearly do ble the year-earlier volume, as 1 new business customers signed u The sign-up rate was a 75% incre over the third quarter.

In a prior life, Cuban, 40, found MicroSolutions, a systems-integ tion firm, in 1983. Twelve years la he started Broadcast.com out of spare bedroom. Now his 26% stake worth roughly half a billion dollars

He sees "no natural competitor in the corporate-broadcast market but he isn't looking hard enoug PlaceWare, a Xerox PARC spinoff Mountain View, Calif., targets bu nesses interested in the same types services. PictureTel, the Andov Mass. firm that has been in t videoconferencing business sin long before anybody heard of t Web, is another competitor. January PictureTel got a $30.5 m lion investment from Intel. Its di tal telephone lines a local area networks let deliver better video, alb to a smaller audience th the Internet.

There is no reason th other upstarts cannot just what Cuban doing—Scotch-taping o the-shelf hardware to so scraps of proprietary so ware to create an Intern video site for corporations. Broadcast.com could get bought by some Yahoo-style Web giant.

Cuban, nevertheless, figures that he can establish his business now, will be well positioned when t bandwidth does arrive. In short, a to deliver quality on the ne upgrade: Call it version 3.1. T strategy has worked for Bill Gates numerous occasions. Maybe it w work for Mark Cuban. ■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Aetna jumped over a lot of hurdles when it cut back face-to-face training in favor c cyberclasses. Was it worth it?

Good morning, HAL

By Luisa Kroll

MAUD MENSA-BONSU settles into her cubicle in Arlington, Tex., ready to attend a training class given by her employer, Aetna U.S. Healthcare. She logs onto her computer and dials into Aetna's headquarters in Hartford, Conn. A click on an icon allows her instructor in Hartford to know she has arrived for class. Mensa-Bonsu's ten classmates today are sitting in front of their computers in California, Ohio and North Carolina.

For the next six hours, the instructor, using the computer screen as blackboard, teaches the customer service representatives everything from handling angry callers to enrolling new members.

Training is a lumbering $62 billion industry everybody loves to hate. You've got to train your workers, of course, but it's awfully expensive and time consuming to fly them around to sit, dazed, in an overheated classroom.

Cyberclasses to the rescue. Aetna, in the forefront, has trained more than 3,000 employees on-line since November 1997 and expects to triple that number by end of next year. Office Depot, Fidelity, Chrysler, American Airlines, Sony and Nortel all train employees via the Web. Indeed, corporate spending on Web training hit $600 million in less than five years, and is expected to jump to $10 billion by 2002. Companies report big cost savings. MCI WorldCom says it saved $5.6 million last year over traditional training.

That's the good news. But is cybertraining any more effective? We visited Aetna to find out.

Aetna's move into cybertraining was spurred by crisis. The company decided in late 1996 to disperse its service representatives out of headquarters into regional offices. That meant hiring 800 employees and overhauling work assignments for 400 others. Employees who used to be assigned one task, like inputting new enrollment information for all customers, would now handle several different functions.

Educating these 1,200 people fell to David Blair, a training director for Aetna's health care division. Face-to-face training, he figured, would cost $5 million for travel, to say nothing of the disruption in the lives of employees.

A virtual Aetna classroom in Blue Bell, Pa. **In Arlington, Tex. and Fresno, Calif., workers are attending the same class.**

Blair spent five months researching on-line training and came away smitten. Top management was less enthusiastic but gave Blair the green light.

Picking the right technology was the first hurdle. Aetna tested the software of the three main real-time on-line training suppliers for six months *(see box, p. 120)*. Aetna felt two of the suppliers would require more bandwidth, at monumental cost. The third supplier, Ilinc of Troy, N.Y., boasted that its system transmitted information more efficiently. Rather than send nine copies of a document to nine peopl in different regions, it broadcasts on copy to Aetna's network, which a infinite number of people can acces This process, called IP multicasting eliminated the need to add band width. Aetna chose Ilinc, and decide to reconfigure its routers and insta other fail-safes to prevent disruption in its existing network. The educa tional software and network upgrade cost $450,000.

Now came getting the work force t accept on-line training. Employees pep pered bosses with questions: Woul they get as much attention? Would the learn the subject matter taught over computer? Mensa-Bonsu remembe thinking, "I was concerned not to hav someone in the room with me. I wor

Never underestimate the importance of people.
A friendly reminder from the people who can get the best out of yours.
Hewitt
Improving Business Results Through People

The cybertrainers

More than 100 companies are involved in some facet of on-line training. These three are the leaders in the fast-growing segment of real-time virtual training software:

Centra Software, Inc.
(Lexington, Mass.)
Revenues: $5 million to $10 million in 1998. Expects to be profitable this year.
Customers: 121 including NEC, Sony and PriceWaterhouse Coopers.
Point of difference: Offers software that goes beyond training, such as for on-line sales team support and new product rollouts.

Ilinc
(Troy, N.Y.)
Revenues: Undisclosed. Became profitable in 1998.
Customers: 150 including Office Depot, Chrysler Financial, MCI WorldCom and Aetna.
Point of difference: Can use software in combination with audio- and videoconferencing capabilities.

Lotus Development Corp.
(Cambridge, Mass.)
Revenues: Undisclosed. Expects revenues to quadruple in 1999.
Customers: 250 including Siemens Business Communications and GE Medical.
Point of difference: Lotus got into the field by acquiring Databeam, a forerunner in virtual training. Backed by IBM's muscle and a range of products.

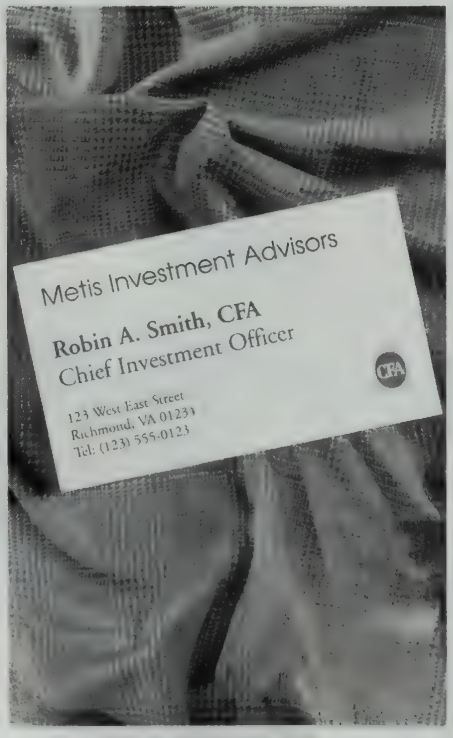
dered how I would ask questions."

The trainers were nervous, too. "We thought [Blair] was nuts," says trainer Kathleen Petronio. These tech neophytes couldn't fathom how teaching over a computer would be effective. They also feared that their interpersonal skills would be useless. Two of 33 trainers asked to be transferred to other projects after finding they simply couldn't handle the technology.

The Web is a new medium, and you have to adapt to it. For starters, long lectures don't hold people's attention in cyberspace. The Aetna trainers had to scrap their teaching routine and rewrite lesson plans in 15-minute increments. They broke up the sessions with interactive exe cises like quizzes. Petronio uses th *Jeopardy!* game show format t review material with her students.

In the early classes the technolog cal kinks were a nuisance. One da the Aetna training database migh crash. Other times, the softwa didn't load properly onto the PCs.

So has this effort been worth it? Th results are impressive: Employee taught via Ilinc scored four percentag points higher on training achievemen tests than those taught face-to-fac Aetna discovered what much of th training industry already knew– people retain information better if it broken into short stretches and interactive like the Web program. Aft software costs, Aetna figures it h saved $3 million so far and is expand ing the program throughout custom service. Some employees, at leas prefer cybereducation. "I feel freer t ask questions," says Kimberly Russel an eligibility consultant in New Alban Ohio. "And the teacher won't catc you if you yawn." ■



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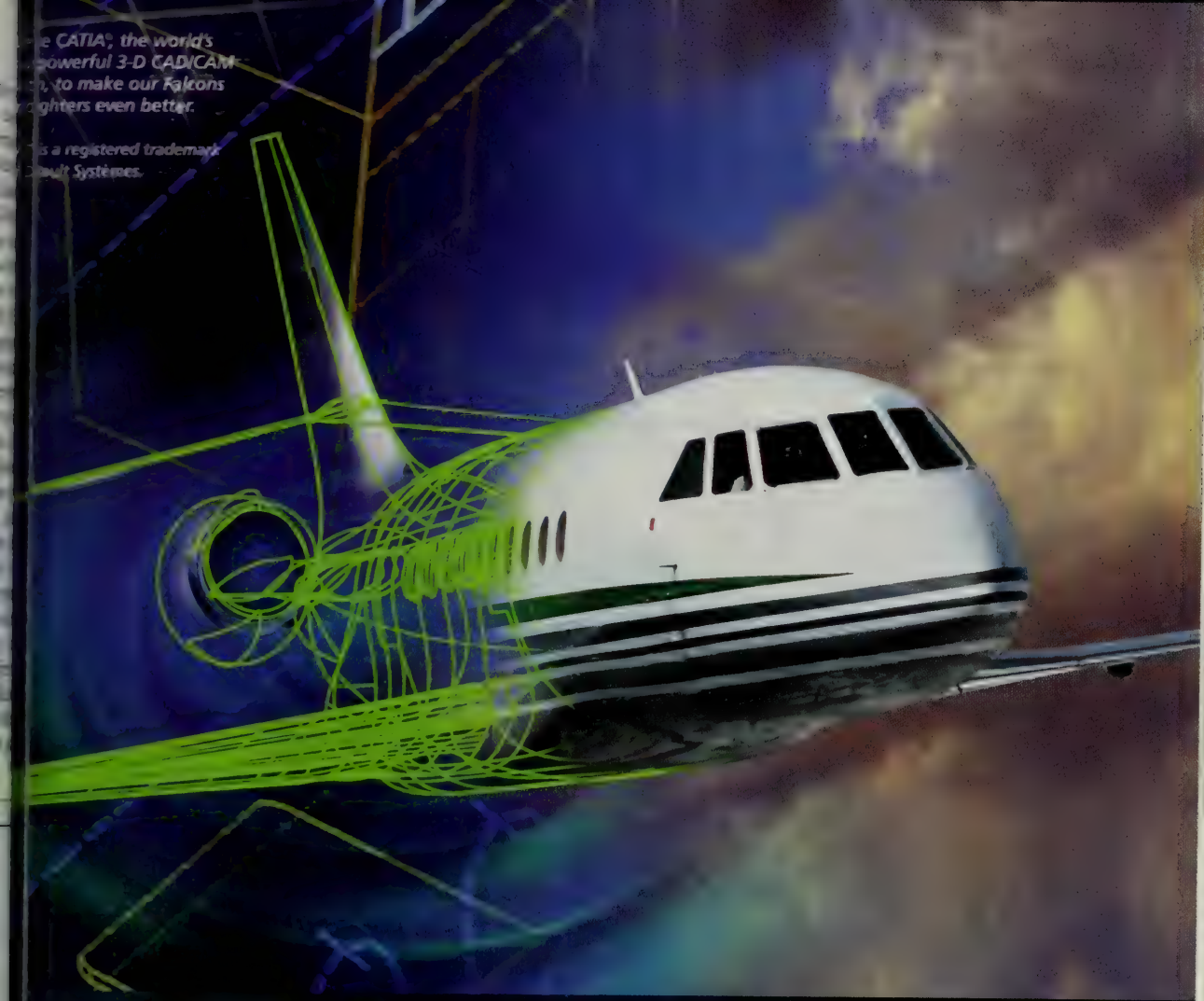

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Some thoughts about cigars a
the people who broug

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From the beginning, it's never been just a "guy" thing.

As the people who introduced modern cigars to the world, we at Tabacalera de España have been a big part of the relationship ever since. Now that we're bringing cigars to America, we thought we might share some observations about this long-standing love affair. The first one

Yes, Salvador Dalí smoked and loved cigars.
Whether the... ...mains a mystery.

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CM TOGETHER IN THE FIRST PLACE.

CIGARS AND PORT.
JR IS IT CIGARS AND BRANDY?

ld be cigars and Bordeaux. Or cigars and
ven. It could even be cigars and baseball, although

Nothing smoothes out the edges of a rough day like a fine cigar.

where we (and cigars) come from, it tends to be cigars and bullfighting instead. The simple truth is, the cigar seems by its
ature to seek out interesting company. And it's
monogamous when it comes to perfect partners.

You should share it with the things (and people) you love. The right cigar will love you back unconditionally.

IN THE END, THERE CAN NEVER BE TOO MANY GOOD CIGARS.

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Some of our (and the world's) favorite cigars
Today we bring them to America

1636 TABACALERA 1636
DE ESPAÑA

Tabacalera de España. From the beginning.

** Cuban tobacco not available for American distribution*

SOME THOUGHTS ABOUT CIGARS A
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** Cuban tobacco not available for American distribution*

Electronic commerce is a merchant's dream: no costly stores, no payroll for salespeople, slim inventory costs. In four years almost 90,000 on-line merchants have opened shop. Build a Web site and they will come.

Traditional retailers embrace the dream, too—about 40% are on the World Wide Web and most others plan to join them, according to an Ernst & Young survey. On-line sales totaled $8 billion last year and could grow tenfold in four years.

Promising, but now comes the hard part: turning a profit. Behind high-tech screens are some distinctly low-

ders expects the Web effort to run a loss of $10 million thi year and $20 million the next. The chain's stock tumble 38% when those prospects and other snags were disclose in early January. It hasn't recovered. Seems investors unfazed by red ink for on-line upstarts with "dot-com" i their names, are unforgiving when the same applies to old line firms going on the Web.

Yet Pfeffer, like many marketers—like your company most likely—has little choice but to go on-line. His rival at Barnes & Noble had preceded him onto the Web, an both chains had good reason to fear the soaring sales c Amazon.com.

Lost in cybe

By Mary Beth Grover

tech costs. On-line sellers that had dreamed of avoiding bricks and mortar are now building distribution centers and warehouses. The Web's ability to compare prices at the click of a button sparks jarring discounts and costly coupon wars. And for all those eyeballs on-line, marketing consumes a frightful chunk of revenues.

E-commerce looks promising. Now comes the hard part: making it work.

The hurdles can be even higher for traditional retailers going digital. Their on-line sales may simply cannibalize sales they would have racked up off-line—that is, in the real world. Their backshop infrastructures were built to dispatch truckloads of goods to hundreds of stores—not ship small orders to millions of individual customers. (Catalog companies are better equipped but have their own worries; *see story, p. 126.*)

Manufacturers hoping to sell directly to consumers risk the wrath of the dealers and wholesalers that provide most of their revenues. In short, the Web is both the problem and the opportunity.

No wonder some merchants venture into cyberspace with no small amount of dread. Borders, the second-largest chain of bookstores, opened its Web site last May but wasn't exactly ecstatic about it. The 1,145-store chain's chief executive, Philip Pfeffer, sounds like one reluctant cybernaut: "Books, music and video have all been substantially discounted. Consumers get good value, but in the long run margins are inadequate to support the business regardless of how much volume is done."

Pfeffer worries that Web profits may never come. Bor-

Amazon opened up shop in 1995 and offered dis counts of 30% on bestsellers. Barnes & Noble turned u the heat on-line in May 1997 by offering 40% off. Wa Mart, one of the largest booksellers, has a Web outpo slashing 45% off list prices—and upstart Buy.co promises 50% discounts.

So Pfeffer opened a vein and bled, offering on-line di counts even as he jacked up spending for the privilege doing it. To gear up for shipping tiny orders to thousand of customers, Borders had to build a separate $15 millio distribution center in LaVergne, Tenn. All told, the distr bution costs of an on-line storefront can be surprising high—about 15% of sales for Web sellers like Borders.

At the front end, Borders had to get cybershoppers int its on-line store. On the Web, that can mean paying hef fees to other sites for referring their visitors to yours. It a kind of rent: Popular "portals" like Yahoo lure the crit cal mass of eyeballs, so e-commerce companies pay f prominent placement on Yahoo and for customer "clicl throughs." Such rent and other marketing costs can run 65% of sales, says the Boston Consulting Group.

Borders spent $5 million marketing its new Web site 1998 and could lay out $20 million this year. Pfeffer won confirm the numbers but laments: "I can remember hea ing this is a great model. With bricks and mortar com rent. But the fact is, real estate costs on-line are significan It makes it really difficult to get profits."

For existing retailers, the scary prospect is that the les profitable setting of the Web—rather than create ext sales from new customers—will simply siphon off t higher-margin sales from their stores. That could happ at Borders. Buying two or more books can be instant cheaper on its Web site than in its stores largely becau customers can avoid state sales taxes. (Retailers must c

space

Borders' chief executive, Philip Pfeffer: Great model? "It's really difficult to get profits."

Pulp Addiction

THE MAIL-ORDER BUSINESS seems like a natural for e-commerce: You have customers who buy remotely; narrowly targeted products; databases on our innermost shopping habits; the fulfillment back-end. Slap on a Web address and free up our mailboxes. Please?

Don't count on it. Fourteen *billion* print catalogs went out last year, and the massive mailings show no signs of abating. That's two or three for each U.S. household every week. Web commerce hit $13 billion in 1998, but half of catalogers haven't even started selling on-line. The efforts of the other half are downright timid.

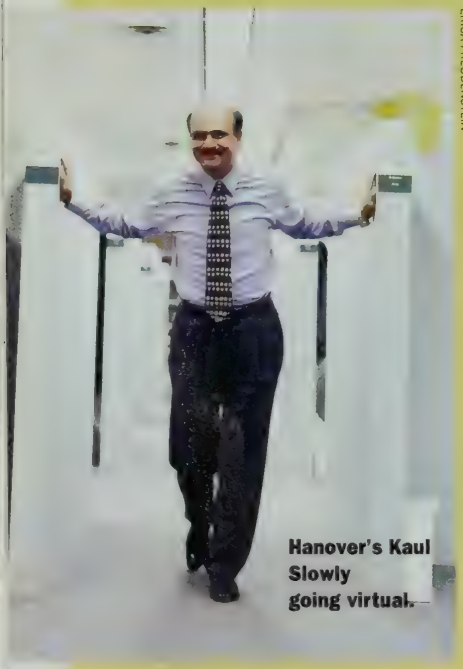
Crate & Barrel relegates the Internet to a seconds warehouse, using third parties like Catalog City to liquidate inventory. Williams-Sonoma uses the Web as little more than a glorified store locator. Go to most any catalog site—Harry and David, J. Crew, Smith & Hawken—and one of the first buttons you see is "Order Catalog."

"Why be so quick to give them that option, when they're right there? It's fear," says Robert Lickton, president of Lickton Supply Corp. in Oak Park, Ill. He has switched his bike gear catalog, started by his grandfather in 1935, to a Web-only offering and formed the Paperless Catalog Association to prod the industry's belated efforts on-line.

Catalogers have never been a nimble bunch. They are wary of plowing cash into a channel that provided only 2% of their estimated $87 billion in 1998 U.S. sales. It can cost $250,000 to get started, and a full-scale sales site costs $6 million to start and $4 million a year to run, says International Data Corp.

Yet half of all catalog firms have annual sales of $8 million or less, putting e-commerce efforts out of reach for some. "Even if they get it, they think they can't afford to get it," says Rakesh Kaul, chief executive of Hanover Direct in Weehawken, N.J., which owns Gump's By Mail, The Company Store and a dozen other catalogs.

Yet scrimping on Web costs risks disappointing your customers with lame offerings; they may never return. "People who like to flip through our catalog have a well-defined set of expectations," says Lester Hsieh, head of marketing for Hammacher Schlemmer in Chicago, which launched its Web site in 1998. "If we confuse or bore or annoy them, we're corroding the print brand."



ERICA FREUDENSTEIN

Hanover's Kaul Slowly going virtual.

Yes, but look at the payoff: Th cost of printing and mailing a cata log is 35 cents to 70 cents; the cos of an extra hit on the Web is clos to zero. And fewer warm bodies ar needed to complete the transaction shaving up to $8 off the cost of han dling a sale.

At Hanover Direct, Kaul has gon on-line in baby steps, starting witl International Male, a trendy men' clothing retailer, in November 199 and spending up to $300,000 eac time. The 12th title, Gump's (hom furnishings and knickknacks), wen virtual last July.

Kaul learned as he went along. Sil houettes, for plus-size women needed minimal promotion. Gump' got off to a relatively slower star and requires more promotiona spending. Kaul's Web sales grew ten fold last year but provided only 1 to 8% of sales, depending on the cat alog. Still, he plans to spend $5 million in the next three years devel oping his Web stores and other e commerce endeavors. He think most orders will eventually occur on line: "The catalog's role will b more as a promotional vehicle, sampler."

Frederick's of Hollywood's We site, erected in 1996, now provide 8% of sales, and Frederick's figure that portion could surpass 20% in few years. Victoria's Secret, by con trast, didn't go on-line until Decem ber 1998.

"They're making a big mistake, Frederick's president, Terry Patter son, says of her Victoria rivals. Som 45% of Frederick's on-line shopper are newcomers rather than existin catalog clients. "That 45% was up fo grabs," she says. "We're grabbing first." –AMY DOAN ■

lect the tax only in the states where they have a physical presence. Borders' separate on-line unit has only two such outposts: the warehouse in Tennessee, and headquarters in Ann Arbor, Mich.)

So Pfeffer looks for other upsides. Even if his Web site never turns a profit, he hopes it can increase sales *in stores.* Shoppers frustrated by sold-out stock and hard-to-get titles can now place special orders via Web-linked PCs in Borders outlets. This approach could bring in several million dollars in revenue in each quarter, less than 1% of total sales.

Of course, the Web is supposed to be a sales outlet unt itself, and virtually no on-liner has more experience at than Amazon. And rarely have so many companies bee thrown into so much panic by a company that loses s much money. In the past three years Amazon lost a cumu lative $162 million on sales of $774 million. Indeed, th deficit has grown nearly as rapidly as revenue. As a pe centage of sales, Amazon's net loss has actually gotte

y.com's
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SUSAN WARNER

orse, widening from 16.4% in the last quarter of 1997 to 8.4% in the last quarter of 1998. Amazon expects more sses for the foreseeable future.

Even for a pure on-liner like Amazon, distribution costs e a huge drain. When Jeffrey Bezos founded Amazon in 994, he planned to rely heavily on Ingram Books, the rgest book wholesaler in the U.S. The concept: Ingram ould keep his inventory—and the costs that go with keeping inventory.

Bezos bragged of offering 1.1 million titles while stocking just 500 bestsellers, in a single 45,000-square-foot arehouse. He set up shop in Seattle in part because of its roximity to some Ingram operations. But he stopped hort of letting Ingram handle shipping to individual customers, insisting on deploying his own force to ensure uality of service.

Three years later Amazon relied on Ingram for 60% of s books. That portion has since declined, and today twohirds of Amazon's 2,100 employees work on customer fulfillment," placing orders, packing shipments and nswering customer e-mails and processing credit card harges. That consumes close to 10% of revenue, and it ould go higher.

Now Ingram is being bought for $600 million by mazon's rival, Barnes & Noble. Ingram hopes to keep pplying Amazon, but Amazon is increasingly sidestepping Ingram to buy directly from publishers.

To house all its new inventory, Amazon is opening its hird warehouse—a colossal seven-acre facility in Fernley, lev.—with plans for a fourth and possibly a fifth one. taffing costs will grow accordingly.

Worth it? Even Sam Walton of Wal-Mart shaved his cost of goods sold only 2% below his competitors by buying direct. Amazon says its gross margins on books have risen four percentage points in 18 months. But music CDs now provide 13% of sales, a big reason the on-liner's overall gross margin fell by 1.6 points, to 21.1%.

Perhaps Amazon will find profits in becoming an on-line landlord. In December Bezos launched a "shop the Web" program, charging "e-tailers" rent to be featured on Amazon. Cyberspace is getting to be as expensive as a storefront on Rodeo Drive. Barnes & Noble's on-line unit is paying America Online an eye-popping $40 million to lock in space as AOL's exclusive bookseller for four years. A bargain?

"I've always felt these portal deals were way too expensive and lock you in for way too long," says Darryl Peck, head of Cyberian Outpost, a Web seller of computers. "No one knows if they're going to work or not."

Music sellers N2K and CDNow agreed to merge in part because their already-ailing finances were hurt by contracts to spend, between them, $108 million for similar market-

Cramped quarters

E-tailers have little room for profit even if marketing and rent fall, as shown at right.

DOUG ROSS

	Superstores	On-line
Average sale	$100.00	[illegible]
(Discount)	[illegible]	[illegible]
Shipping & handling		[illegible]
Sales tax	[illegible]	[illegible]
Customer pays	[illegible]	[illegible]
Cost of sales	67.41	57.60
Shipping & handling	2.88	9.90
Gross profit	26.71	23.50
Operating expenses		
Rent	[illegible]	[illegible]
Labor & store	[illegible]	[illegible]
Web site development	[illegible]	[illegible]
Marketing	[illegible]	[illegible]
Total	[illegible]	[illegible]
Operating profit per order	[illegible]	[illegible]

Source: Christopher Vroom, Thomas Weitzel Partners

ing agreements. That is almost half their hoped-for full-year revenue—a costly promotion, to be sure. "We don't want to go out and talk about how it's not working," says N2K Chief Executive Jon Diamond. He has renegotiated some deals, which could reduce the cost by $10 million.

Such savings can get eaten up quickly by other needs. Ad budgets are a big jolt. Last summer software seller Beyond.com began a six-month TV blitz for $10 million—exceeding its entire third-quarter sales. Buy.com, an on-line discount store, paid $1.6 million for a single 30-second spot on the Super Bowl.

Special promotions are *de rigueur*. At the Buy.com site, you can get an Agfa digital camera for $723.95—and a $250 Clik disk drive free of charge. Computer Literacy, an on-line seller of computer books, offers some software developers $19.95 off any purchase north of that amount.

Technology spending can be a drain, too. 1-800-Flowers poured $13 million into its new Web site and will spend $15 million in the next two years to upgrade it. "We've been profitable thus far. Now we're plunging into the dark," says Chief Executive James McCann. "Still, we do believe it's the future. We're betting all our chips on it."

The Web was supposed to all but wipe out the cost of customer support, letting mouse-clicks replace phone orders. Don't count on it. During the Christmas rush, Shopping.com's support lines were swamped with callers who needed a human touch. Some of them were left on hold for an hour. The Web discounter, which sells watches, Cuisinarts and other goods, doubled its support staff to 50 people, easily adding another $1.5 million a year in costs. Yet revenue for the nine months ended Oct. 31 totaled just $4 million.

Compaq Computer Corp. is willing to forgive Shopping.com its cost problems, for now. It has agreed to buy the upstart for $200 million.

Will these Web selling costs go away? Probably not. Web merchants have noticed that on-line buyers are indecisive, filling and emptying their digital shopping baskets as they proceed through a site, but then erasing two-thirds of their purchases before reaching the checkout. They lose their nerve or can't find their way out.

"The bottom line is that e-commerce companies have to spend more on phone centers than bargained for," says Ajit Pendse, founder of Beaverton, Ore.-based Efusion. His firm offers a fix. He pushes "pop-up" buttons on Web pages that could route frustrated customers who are ready to bail out to a service rep, turning the PC into a speakerphone.

There must be some way to make money. Ebay, the auctioneer, is one of the few Websters to turn a profit, in part because it refuses to fuss with "fulfillment"; customers who use the site must do the work to get the booty shipped from buyer to seller. Beyond.com hopes to cut delivery costs by zapping more copies of software over phone lines into customers' PCs.

Scott Blum, the founder of Buy.com, plans to sell some products below cost—in the expectation of building a large enough audience that he can make money on advertising. He hopes so many customers stampede his way that *other* Web sites will pay him big bucks for customer referrals.

Good luck to him. Someone will get it right, but along the way hype and hope will collide with harsh realities. "This is just a catalog retail business with lower barriers to entry. Margins, if they ever materialize, will always be crummy," grouses Michael Murphy, a veteran tech investor in Half Moon Bay, Calif. He may be right. ■

Grade-A challenges

"BRICK-AND-MORTAR" retailers thought the Web would slash costs for rent and payroll. Some are still waiting for the miracle.

Egghead.com ($140 million estimated 1999 sales) began life as Egghead, Inc., a leading software chain in the 1980s. Mass merchandisers squeezed its margins, and the retail division last saw an operating profit in 1992. Hoping to cut costs, Egghead shuttered its remaining 83 stores a year ago and sought refuge on-line as Egghead.com.

But the Spokane, Wash. on-liner is struggling. Losses were at $21.6 million on $106 million in sales for the first nine months of fiscal 1999—42% more than last year.

It should have been easy. Rather than ship software by mail, Egghead would zap it to customers over the Web. But bandwidth isn't up to snuff. Until buyers can download fast and cleanly, the low-cost sales will be negligible.

Now Egghead is trying its hand at selling clothes, luggage, jewelry—even country hams. But sales, general and administrative expenses are actually up—to 34% of revenue from 18% in 1992. And gross margins are down from 20% in 1992 to 10% this year. One upside: The "dot-com" in its name helps the stock; it's still around $17. –BRETT NELSON ■

CHRISTOPHER HARTING

On-line scramble: a retailer retreats to cyberspace—with mixed results.

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By James Champy

Form follows customers

A SENIOR MANAGER of a multinational recently leaned across the dinner table and asked: "Jim, how would you organize a company?" What functions, she wanted to know, should be centralized? Which should be decentralized? Should business units be organized by geography, by product or otherwise?

As I carefully framed my response, I realized I hadn't heard such questions in a long, long time. "How do you segment your customers?" I began.

Passionate structural discussions aren't really necessary in most of today's "reorganizations," which, by and large, are pretty primitive affairs. The ones you read about involve humongous acquisitions and mergers, such as Citibank and Travelers, Exxon and Mobil, MCI and WorldCom. In these deals, the primary questions troubling senior executives are twofold: Who will run the combined companies? How can we quickly make this consolidation pay off? Restructuring amounts to smashing things together.

Managers may also have concluded that there's no such thing as the perfect "structure," so there's no point in debating it. We've discovered that decentralizing functions like personnel, data processing and finance generally results in better service but higher costs. Centralizing functions usually results in lower costs but poorer service and loss of control.

Meanwhile, rapidly changing business and technology factors are making what's left of the debate passé. For example, country business units are becoming less important. Eventually, electronic channels will make corporate structures customized to one country irrelevant. Customers who buy over the Web don't care where the products come from or where they're made. They'll simply assume that companies will be able to deliver uniform quality and price, everywhere, anytime.

Organizing by product? That, too, is

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Businesses must find ways to mirror their customers—big or small, service-conscious or price-sensitive, occasional buyer or soul mate.

James Champy, coauthor of *Reengineering the Corporation*, is chairman of consulting for Perot Systems Corp

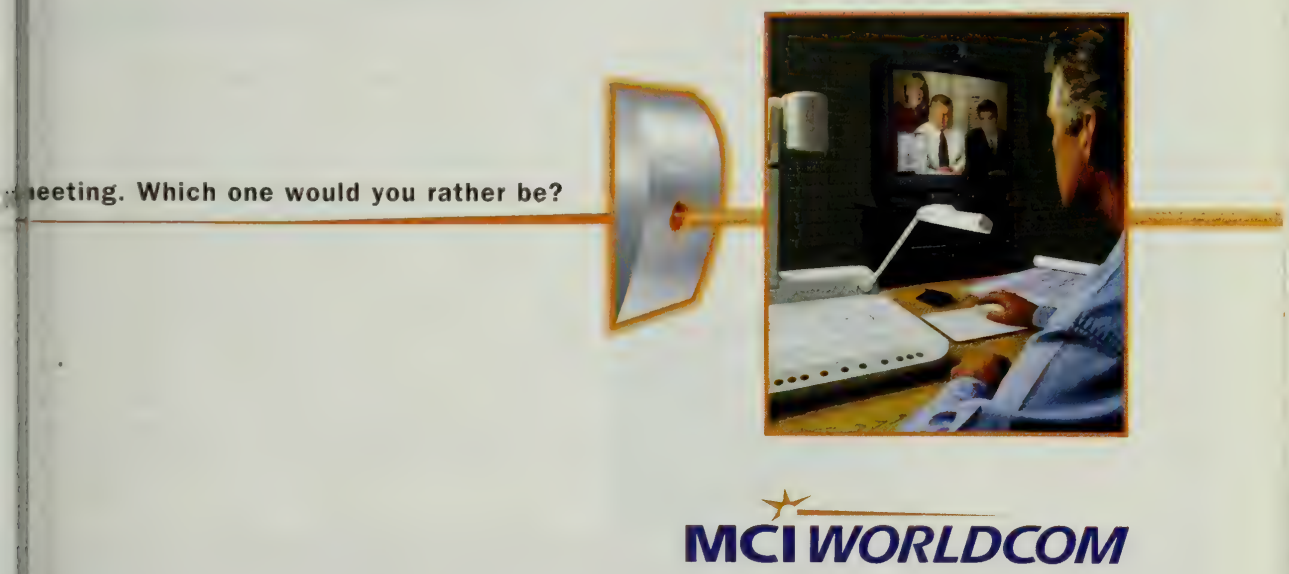
becoming archaic, as customers demand that products be combined and delivered in ways that fit their needs. Hospital supply companies that provide a wide range of drugs and surgical supplies bend their logistics structures into pretzels to combine disparate products from many vendors and units. Indeed, Johnson & Johnson learned this a lifetime ago.

So what's left to debate? Simply this: Businesses must find better ways to mirror their customers—big or small, sophisticated or casual, service-conscious or price-sensitive, occasional buyer or soul mate. There are countless ways to segment customers and address their specific needs. Start thinking about them.

- First, understand how your customers differ. What are their met and unmet needs? Some big customers may want close relationships, as Wal-Mart demands of all its "partners." Others may just want transactions based solely on price.
- Consider not only the products that will meet their needs but the kind of experience you want to create for each type of customer. Dunkin' Donuts and Starbucks, for example, have obviously come to different conclusions about the ambience they want to create for their customers.
- Think about the behavior that will be required of your people to create those customer experiences and the best way of "organizing" to support that behavior. For example, the fewer departments you create internally, the more the customer experiences you as being highly responsive to customer needs. The more fragmented you are, the less likely you are to give your customer the experience of good service.
- Decide what will be most important to your customers: new product development, exceptional service, logistics. You may find that you don't need separate structures for different types of customers—only different processes.

Louis Henri Sullivan, the Chicago architect and designer of the world's first skyscrapers, famously said, "Form ever follows function," in describing how to design a building.

Designing a winning business is also a tall order. But the blueprint starts with customer segmentation. ■



Portable gadgets always had to compromise between speed and stamina—until ferroelectric science came to the rescue. It just might rewrite the chip industry.

A computer in every shirt collar?

By Neil Weinberg

WALK THE HALLWAY at Celis Semiconductor Corp., a ten-person chip designer in Colorado Springs, Colo., and you get a tour of the computer memory business. On one side chip engineers from Matsushita and Mitsubishi crouch over workstations in dimly lit offices. Across the hall: rivals from Korea's Hyundai and France's STMicroelectronics. A padlocked rack of routers and electronic firewalls keep everyone honest.

Samsung, the world's largest memory maker, Siemens, NEC, Fujitsu and Hitachi have descended upon Colorado Springs lately. What's the draw? Tiny Celis, along with nearby parent Symetrix and crosstown rival Ramtron, have turned the town into the fountainhead for a technology that could be, for the next generation of portable computers and telephones, what DRAMs are for today's PCs.

The new technology is known as ferroelectric random access memory, or FRAM—as distinguished from DRAM (for dynamic random access memory). The technology is already doing duty inside millions of cell phones. The allure: the potential to combine the best features of other memory chips without the drawbacks—to work at blazing speeds yet consume far less energy and last far longer.

FRAMs could let digital cameras shoot one photo after another continuously, instead of having to wait several seconds to save each image. In electronic organizers, FRAMs could replace today's memory chips, make do with much smaller batteries and eliminate hard-disk backup.

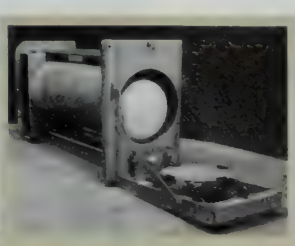
FRAMs will catch on in a big way in the next few years, particularly in low-end stuff—inside videogames, air bags and VCRs. But some sophisticated new devices are coming, too. Millions of FRAM-powered smart cards are bound for automatic fare collection on subways and buses in Washington, D.C., Shanghai and elsewhere. The chips for the credit-card-size devices, supplied by Nasdaq-listed Ramtron, sip so little power that they run entirely on a radio signal from a turnstile-mounted reader. The FRAMs wake up, deduct the fare and send it back to the reader in a tenth of a second.

The new chips are so cheap and durable that they may soon win work in no-stop toll booths and package-tracking tags—even as button-sized chips identifying a shirt's owner and telling the dry cleaner how much starch to use.

FRAMs cost as little as 20 cents apiece, yet Fujitsu expects the FRAM market to grow from near zero last year to $10 billion in 2002. The technology one day may even challenge DRAM chips in computers, a $16-billion-a-year business—although not anytime soon.

The crystals inside FRAMs have 100 times the capacity to hold an electric charge as the silicon dioxide in a DRAM, so in some theoretical sense FRAMs ought to be able to store infor

The capital's brainy subway pass **It works in a tenth of a second with no battery—and no touch.**



Did not compute

The path to glory in the business is riddled ilures that might n:

WILLIAMS TUBE: digital grid on cathode ray tube. IBM installed it in first commercial computer, 1953. Knocked out by press flashbulbs at unveiling. Eventually abandoned as unreliable.

JOSEPHSON JUNCTION: shot electrons through insulator with zero resistance. Superfast—but too large and required cooling to near absolute zero in liquid helium.

BUBBLE MEMORY: floating magnetized bubbles hyped in early 1970s as replacement for DRAMs and hard disks. Flopped due to low density, slow speed but yielded magneto-optical material for CDs.

ation 100 times as densely. But pro-
uction techniques have a long way
go. The densest FRAM chips, due
is summer, will hold only 4 million
ts of data (4 megabits), laughably
imitive compared with the 64-
egabit DRAMs now in use.

This misses the point. FRAM's real
romise isn't as an understudy for
RAMs but as the centerpiece of new
wireless gad-

gets. "Our
oal isn't to replace DRAMs but to use
RAMs to create new portable mar-
ts," says Carlos Mazure, who runs
rroelectric development at Siemens.

To be sure, high-tech is littered
ith memory might-have-beens that
ll victim to their own glitches and to
inding improvements in DRAMs and
sk storage *(see below)*. But FRAM's
herent advantages are clear.

DRAMs run at blazing speeds, yet,
countless cursing PC users know,
power shutdown results in amnesia.
lemory loss doesn't happen for two
her kinds of chips—flash memory
nd Eeproms; they run everything
from microwave ovens to wristwatch-
es. But that feature means they are
especially poky at storing new data.

FRAMs, by contrast, are as speedy
as DRAMs, yet, like flash memory,
retain their data when the power
is off. And FRAMs do it better. They
can store data for years without con-
suming any electricity. Compared with
flash and Eeproms, they can download
data thousands of times faster, yet use
one-tenth the power and run 100,000
times longer before wearing out. A
FRAM could handle word-
processing functions
for years; flash memory
would wear out almost
immediately.

Ferroelectrics have
been around for a
century. The name
aside, they contain
no iron; they are
ceramic crystals that,
when zapped with
an electrical charge,
take on a positive
or negative electric
polarity. Work on
computer uses
began in earnest in
the 1950s, but
foiled research pow-
erhouses IBM, Bell Labs and Westing-
house. In 1973 IBM scientists declared
FRAMs a dead-end.

Early prototypes quickly "fa-
tigued"—they stopped holding a
charge or data. They also interacted
badly with the foundation of all other
memory chips: silicon.

The resurrection came in the early
1980s when Carlos Araujo, a profes-
sor at the University of Colorado,
began working with industry veterans
Larry McMillan and George Rohrer.
They formed Ramtron in 1982 to
develop a new design. It eliminated
the bad silicon interaction by making
a FRAM sandwich—putting the FRAM
between two microscopic electrodes
to separate it from the silicon base.

Araujo and McMillan left Ramtron
and set up Symetrix in 1988 to work
on the fatigue problem. They set a
deadline: Find a solution by year-end
1991 or shut down. (Rohrer left in
1987; he died last year at 62.)

Four months before their self-
destruct date, they found a solution:
a silicon substitute that could crunch
data for ten years without fatigu-
ing—SBT, or strontium bismuth tan-
talate. Araujo showed the material to
Matsushita engineers, who were so
struck by its rock-solid structure that
they sent a second crew to double-
check the results. In 1995 Ma-
tsushita paid $5 million for 10% of
Symetrix.

Matsushita's early FRAM success
came not in memories but in high-
density filters in cell phones to block
unwanted microwave signals. FRAMs
shrank the six-chip modules that
unscramble phone signals to one-fifti-
eth their previous size. Matsushita
now controls more than half the
world market for the modules and
will make 100 million this year.

While Symetrix and its offspring,
Celis, work with SBT, Ramtron has
invested $150 million over the years
in an older ferroelectric memory tech-
nology known as lead zirconium
titanate, or PZT. Ramtron already has
sold several million PZT chips for
devices such as wireless meter readers.

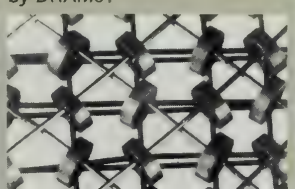
Now Ramtron and Symetrix both
hope to push into bigger markets. "If
we can overcome the barriers of time
and money," says Symetrix's Araujo,
"you'll soon see products like PDAs
(personal digital assistants) with long
battery lives that can always be
hooked to the Net. You'll be able to
download a 35-page report at your
dinner table in seconds."

Your Palm Pilot may soon look like
an antique pocket watch. ■

0 CHIP: early Nineties rage
sing proteins. Promised to
ore one billion times more
ata than silicon without
ectricity. Freezes up when
ied, heated or cooled.
aybe someday.

HOLOGRAPHIC STORAGE: records data on crystals, read by laser. Overlapping data means potential density and computing speed enormous. Cool idea but too bulky with existing materials.

CORE MEMORY: small, magnetized donuts embroidered into a grid. Eventually displaced by DRAMs.



MAGNETIC RANDOM ACCESS MEMORY (MAGRAM): stores data magnetically. Eliminates silicon. No way yet to get it to work under real-world conditions, shrink it to sizes rivaling DRAMs. –N.W.

Layoffs are a fact of life, but they weren't supposed to happen at PeopleSoft.

Bad karma

By Stephan Herrera

MICHAEL MADRID FOR FORBES

YOU KNOW THERE'S SOMETHING WRONG in the enterprise software industry when the number two player, PeopleSoft, cranks out a great year—and then fires 6% of its work force. The news sent PeopleSoft shares down 12% in one day to below the $20 mark. How the mythologized have fallen.

Up until the firings in January, Pleasanton, Calif.-based PeopleSoft was as well known for its cuddly corporate ambience as it was for its software, which automates and integrates everything from the accounting department to the warehouse. The very name of the company suggests a kinder, gentler employer, although in fact it relates to the fact that the business started out selling software to handle personnel departments.

The nice-guy chief executive, David Duffield, once wooed hot-shot fresh out of MIT and Stanford with the tacit promise they'd never have to worry about pink slips at his company. He himself was a refugee from IBM back in the days when that company had a taboo about layoffs. For years PeopleSoft was ranked at the top of everybody's list of best places to work—in no small measure because of the cult of personality Duffield had created for himself.

How could a man who loves animals not be a nice guy? He pledged $200 million of his own money for a crusade to save all the stray cats and dogs that would otherwise be killed every year.

Duffield says he will at some point hire again, presumably to develop and sell software for e-commerce. But what does it say about the once-roaring $14 billion market for enterprise software when David Duffield resorts to layoffs? "It says that the industry is changing, PeopleSoft sees more down quarters ahead, and it's time to get lean and mean," says analyst Kyle Pond of the Gartner Group.

Mean? PeopleSoft?

The company has seen better day Software sales grew a dismal 3% i the fourth quarter of 1998, aft three years of 40%-plus growth. Th company warned analysts recent that revenues, which also come fro maintenance and services, will dow shift from the blistering 60%-plu growth to somewhere around 25 this year. The Nasdaq-listed share which recently were added to the S& 500, fell from a high of $58 la spring to a recent $18.50.

Other storm clouds are looming Regulators are investigating People Soft's research and developmer writedowns dating back to 199 their theory is that the nonrecurrin writedowns have the effect of ove stating regular earnings in years fo lowing. The plaintiffs' bar smel blood and has already filed over dozen class actions alleging stoc fraud and accounting irregularities.

In imposing PeopleSoft's first-ev round of layoff Duffield offere little except to sa in the compan news release tha "all the major ver dors are in a fun with the questionable IT spending."

PeopleSoft Chief Dave Duffield **No more Mr. Nice Guy.**

Excluding charges, fourth-quart profits were up only 1%, but profi for the year were up a robust 45 to $157 million, on sales of $1.3 bi lion, up 61%. In most markets, th would be called stellar. In th market, powerhouse SAP, with $ billion a year in sales, is rated depressed because it eked out a 15 profit gain on 40% sales growth.

Now that he's sent 430 peop packing, Duffield has a tough repa job ahead, not least because of talent shortage in Silicon Valle Objectively, his company is probab a safer employer than others in th software business, like IBM an Oracle. But PeopleSoft was suppose to be capable of doing no wron Who out there will be eager to join company that has just dropped yea of cushy employment practice Maybe PeopleSoft would be bett off if it had never landed in thos best-places-to-work almanacs. ■

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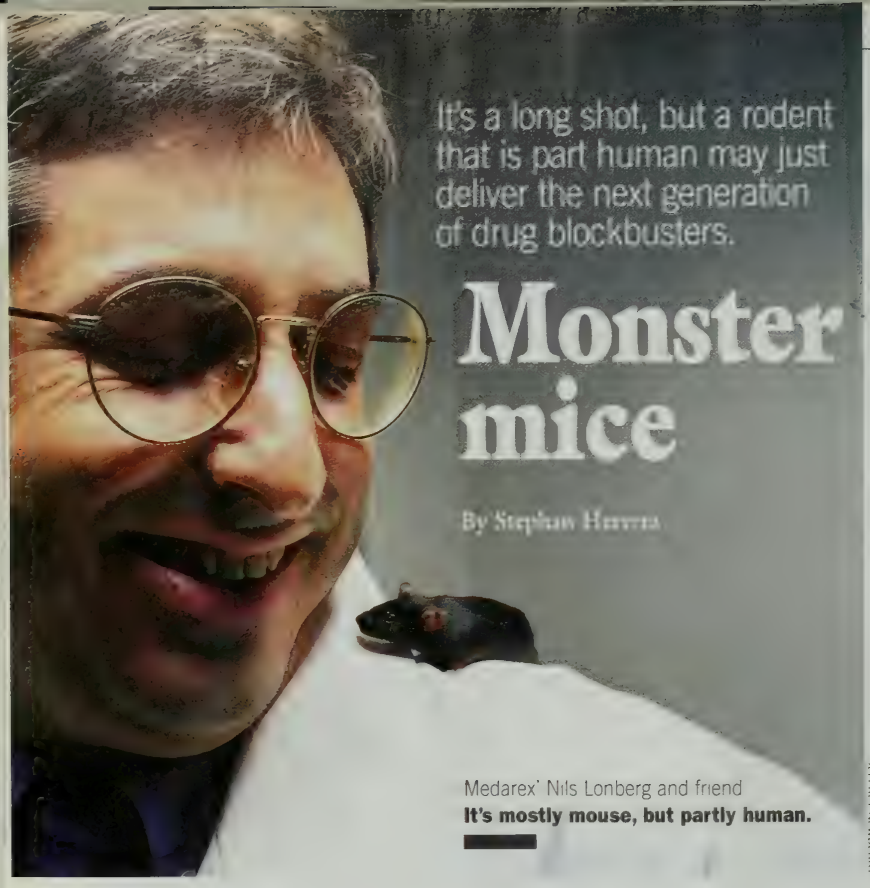

It's a long shot, but a rodent that is part human may just deliver the next generation of drug blockbusters.

Monster mice

By Stephan Herrera

Medarex' Nils Lonberg and friend
It's mostly mouse, but partly human.

JEFFREY NEWBERRY

IN THE SPRING of 1993, Nils Lonberg bred a mouse whose immune system could make human antibodies. That's a feat not unlike getting a cow to give mother's milk, but far more valuable.

The advantage of such quasi-human antibodies is that the body does not perceive them as foreign and so will not develop immunity to them. That means they could theoretically be administered to a patient again and again for chronic conditions, such as cancer and rheumatoid arthritis.

Drug development contracts signed in just the last year with Pfizer, Novartis, Schering AG, Bristol-Myers Squibb and others, could bring in some $200 million. That sum is split between Lonberg's employer, Annandale, N.J.-based Medarex, and Fremont, Calif.-based Abgenix, the two companies breeding these transgenic mice.

Could such mice make magic bullets aimed at individual diseases? They might. "It was pretty cool finally building what they've been talking about for 100 years," says Lonberg, 43.

His recipe starts with a method for isolating that part of the human DNA that encodes part of the immune system. He then injects the DNA into half-day-old mouse embryos. Then he puffs on a tube to blow 20 to 30 of the embryos into a mother mouse's oviduct. "I've worked on 20,000 mice and no, I've never swallowed an embryo," he laughs.

Three weeks later, the mouse drops a litter of pups. The DNA doesn't take in all cases, but you can tell when it does and then breed the mice into sizable colonies. When that's accomplished, you have mice that will produce antibodies that are like human ones in response to almost any antigen—an antigen being the target that a particular antibody latches onto. Next step: Inject the mice with an antigen you want attacked. The antigen could be almost anything—a virus, a cancer cell, a hormone that contributes to a disease, for example. The mice spew out custom-made antibodies against that antigen. Lonberg then collects the antibodies and analyzes their common genetic blueprint.

"Once you've got that blueprint, you can synthesize the gene easily and produce a hybridoma that yields as many antibodies as you want," says Lonberg. (A hybridoma is a tame tumor cell that churns out masses of antibody in biotech fermentation vats. Hybridoma technology, thankfully, is well developed.)

The advantage of fully human antibodies is clear when you consider the older, animal variety. Horse serum has long been used against snake bites, which people rarely get more than once in their lives—fortunately because after just one injection of horse serum, the human body starts to recognize the horse antibody and manufactures antibodies against it. Thus, if the serum is injected again, the immune system will attack it so forcibly that the person goes into shock.

Fully human monoclonal antibodies from transgenic mice don't have that drawback. "There's nothing toxic about them," says Dr. Gerald Krueger, professor of dermatology at the University of Utah. He has just completed preliminary clinical trials on a human-mouse antibody against psoriasis, developed by Abgenix. This antibody neutralizes the so-called IL-8 immune system component that causes psoriasis.

Note the complicated relationships in this strange world of immunology. In the psoriasis experiment the doctors are using one immune system element (an antibody) to attack another one (IL-8), all the while trying to dodge a response from yet another potential player (an antibody against the antibody).

Although the scientists are tight-lipped about what other antibodies they're developing with the mouse technology, Medarex confirms that Schering is working on therapies for inflammation and the Japanese drug giant Eisai for rheumatoid arthritis. Abgenix is farming out its mice for cancer therapies underway at Pfizer and heart disease remedies at Genentech, among others.

Earlier generations of antibodies failed to live up to their billing as magic bullets. The first generation was totally mouse in origin, and patients couldn't tolerate more than one dosage. The second generation, called "chimeric" antibodies, were half human, half mouse, yet patients still showed resistance. This third generation seems to have none of those problems, but patients and investors should be prepared for disappointments. ■

As I See It, #36 in a series
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By Stephen Manes

The camera's the computer

CONVENIENCE is underrated in the world of electronics—but not by customers. Take Sony's Mavica digital photo cameras: They aren't the smallest, the lightest or the best at image quality, but they've become the most popular models sold. The reason? Sheer ease of use.

Other digital units make transferring images from camera to computer a nuisance involving cables or other special adapters. The Mavicas simply store their images on floppy disks. Pop the disk out of the camera and into the computer, and you're done. How could it be simpler?

Well, here's how: Build the camera right into a little subnotebook computer. While you're at it, let it take digital videos as well as stills.

That's the basic idea behind Sony's innovative $2,300 VAIO PictureBook PCG-C1X, which has finally arrived on these shores after months on the market in Japan. I tried a unit with consumer-ready hardware, but software a couple of revisions shy of the market.

The PictureBook is a "concept" computer. It's not for everybody. It won't take truly high-quality pictures, no matter how hard you try. But it just may be a harbinger of a visual era when high-speed connections are commonplace and every computer doubles as a camera and picturephone.

Narrower and shallower than the sleek 3-pound VAIO 505 models Sony pioneered last year (FORBES, *Nov. 16, 1998*), the new unit weighs just under 2½ pounds. Newer 505s are slightly faster, but the PictureBook's specs mimic the last round: 266 megahertz Pentium MMX, 64 megabytes of RAM, 4.3 gigabyte hard drive. The standard battery lasts a similar two hours under aggressive power management; less with the settings recommended for the camera. The unusually wide and short 1,024-by-480-pixel screen will be a boon to coach-class travelers sitting behind adamant reclinders. But the Cinemascope aspect ratio is better suited to spreadsheets than other applications, including many that manipulate images.

That's too bad, because the PictureBook comes with lots of ways of creating and manipulating them. At the top of the screen is a cylinder dubbed "Motion Eye," with a lens peering back at you from the middle. Load the Smart Capture software, and a window on the screen becomes a video mirror watching your every grimace. When you press the capture button on the keyboard, a virtual shutter clicks audibly and the picture appears, complete with correction for the mirror image.

When you get tired of your own physiognomy, you can flip the lens over to point elsewhere. You have a choice of resolutions, trading clarity for economy of storage. At its sharpest, the PictureBook takes a still image of 640 by 480 pixels, which consumes no more than 150 kilobytes of space. The big hard drive gives you plenty of room for snapshots.

Movies hog space. You need about 35 megabytes to store a one-minute video clip with sound at the maximum 160-by-120 pixel size and ten frames per second; if you are willing to make the picture look even grainier, you can compress it significantly. That's hardly Cinemascope: On the Sony's screen you get an image the size of a commemorative postage stamp. These videos are meant for the digital world.

The still images, too, are suited mainly to computers. Even at the top settings, stills won't look good when

VAIO PictureBook **Finish that spreadsheet, make yourself a screen star.**

Manes, a computer industry journa[illegible]ince 1983, is the coauthor of *Gates,* [illegible]hy of Microsoft's chairman.

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blown up past a three-inch width. That's fine for small Web photos or spot shots in documents—I suspect real estate appraisers will love this thing—but it's the wrong solution if you ever plan on enlarging the images. A focus dial lets you move in close, but the limitations that keep the camera from filling a page with a sharp image prevent it from capturing an entire page or a whiteboard clearly.

Special effects, from sepia tones to vignetting, are available, but they tend to slow the on-screen viewfinder. You're generally better off shooting straight and manipulating later, but a few special modes can't easily be duplicated. One takes a picture automatically every time the subject moves a bit—handy for creating animations with the PictureGear program that comes with the computer. Another option helps you line up panoramas by making one edge of the first snap transparent on the screen and letting you overlap the next one. Then you can transfer the sequence to PictureGear to be stitched together. And PictureGear lets you create labels, screensavers and other doodads with the photos you've captured.

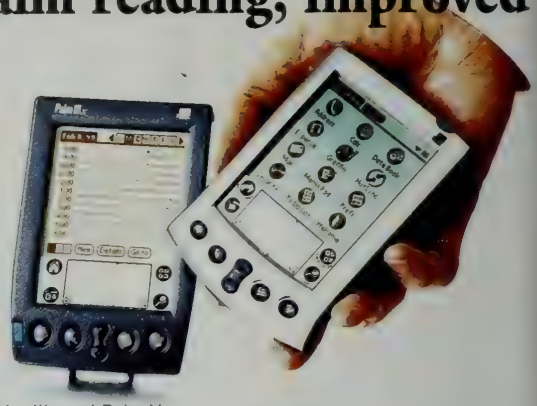
Having a camera built into your computer can be a real convenience. It took almost no time at all to set up Microsoft's normally finicky NetMeeting program and swap jerky live video and tinny sound with Internet strangers who have too much time on their hands. That may be good enough for guilty frequent travelers: Mom can hold a videoconference with the kids back home from the hotel room. Or simply send them e-mail with a snapshot of the palatial airport lounge, since a single click sends pictures to your e-mail program as attachments for transmission.

With a 4.3 gigabyte hard drive in the "camera," you don't have to worry about running out of digital "film."

The PictureBook comes with a built-in 56K modem and a connector for outboard video, but it lacks standard serial and printer ports, a serious omission for many users. The single USB port and the fast but uncommon IEEE 1394 port are the main links to the outside world. Another annoyance: The computer sometimes fails to reawaken from "hibernation," a problem that has remained since the very first 505 models appeared. A spokesman said a fix was imminent for units old and new.

People are learning how to shoot, store, mail and forward digital images and are discovering that phone calls can include video. Early adopters will find the PictureBook a convenient entrée into this growing world of digital imagery. Finicky shutterbugs will be disappointed. ■

Palm reading, improved



Palm IIIx and Palm V

Classic looks, more power vs. slimmer, lighter, sexier.

WHILE NEW Windows CE pocket organizers will woo customers with color displays in heftier packages, 3Com's Palm Computer line sticks to its simple, homespun millions-and-millions-sold recipe. Instead of being freighted with dubious frills, the striking new Palm V makes its case by offering not more but less: less weight, less volume and less eyestrain. It's the Palm Pilot gone slim, elegant and seductive. It's the first Palm that I might buy.

Let me count the improvements: The unit is significantly thinner than older models, and it is smaller, narrower and lighter. A lithium-ion battery is built in, and the connection cradle charges it. The anodized aluminum case has the come-hither look of the best industrial design. The new screen may be the most useful improvement, with contrast so much greater than on past versions it's hard to believe.

The catch? The new form and connector won't mate with older Palm hardware accessories, so those who have made a big commitment to modems and the like will have to pony up for new ones. And elegance does not come cheap: The new model will start life at about $450, while classic Palms go for $200.

Power users may prefer the new $370 Palm IIIx, which has the older, chunkier plastic case but includes twice as much memory and an expansion slot. It has a much improved display, though it's not quite as nice as the V's.

And some may prefer to wait. Palm VII, in an old-style case, will have Internet access and messaging capability via radio, cost less than $800 and enter national field-trials shortly.

Don't rule out Qualcomm's PDQ Smartphone, which is basically a Palm built into a half-pound phone. Due by midyear, it raises a question likely to be heard a lot in coming months: If you're going to be carrying a phone anyway, isn't that where your organizer should be? Another forthcoming answer: Motorola's StarTac Mobile organizer, which will weigh just 2.3 ounces and clip to the popular 3.2-ounce phone. –S.M. ■

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By Joseph R. Garber

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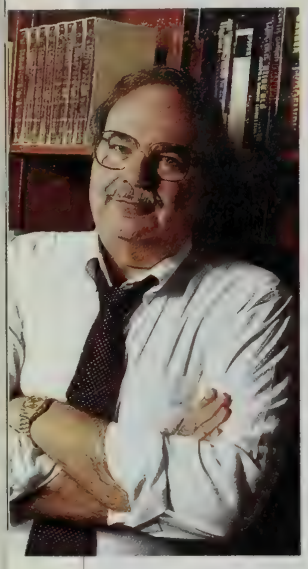

Why should advertisers pay publishers, broadcasters and junk-mailers to promulgate their messages?

NATHANIEL GOLDHABER will pay you to use his Web site.

Is he nuts? Nope—although his Internet ideas sure are different from most entrepreneurs'. That's no surprise: Nat Goldhaber has been one of Silicon Valley's most colorful contrarians for quite a while.

The goateed, 50-year-old president of Berkeley, Calif.-headquartered CyberGold started by taking his business degree from the fully accredited Maharishi University of Management (which he helped found) in Fairfield, Iowa. Attracted to politics, he became, at the tender age of 28, Pennsylvania's acting secretary of energy. Shortly thereafter he had to cope with the Three Mile Island crisis—which, perhaps, explains why he decided to find a new career.

First he founded an early network software company. Then, in 1984, he invented a software gizmo called the Transcendental Operating System. This magically allowed otherwise incompatible Macintosh and DOS computers to swap files at the click of a mouse. Apple should have been ecstatic. Instead it snubbed the technology, believing that the Macintosh would soon drive Microsoft out of the market. Pure hubris, but a roadblock for Goldhaber. By 1987 he was so strapped for cash that he had to sell off his fledgling company to Sun Microsystems for $20 million. Not bad for a guy whose credentials had more to do with transcendental meditation than technology.

After stints as a venture capitalist and, later, chief executive of Kaleida, an Apple-IBM joint venture that flopped, Goldhaber took a year off to meditate on new business ideas. He found the kernel of a promising concept in the following question: Why should advertisers pay publishers, broadcasters and junk-mailers to promulgate their messages? Why not just cut out the middlemen and hand the money over to consumers, as compensation for looking at ads?

This is precisely what CyberGold does. Registered subscribers click through to www.cybergold.com's various advertisers. Some reward visitors for responding to e-mail surveys. Others reimburse those who interact with ads. All of them offer cash or discount to buyers. For example, Disney will give you $5 to sign up for Disney's Blast; Audits & Surveys Worldwide will pay you $6 per month for participating in an ongoing Shell Oil research study.

How does CyberGold profit from these transactions? Easy. Acquiring new customers costs every company money—sometimes big money; for example, one financial institution's advertising bill is, on average, $250 for every new account it signs up. Goldhaber's proposition: Whatever your cost of new customer acquisition is, CyberGold will discount it by 25% or so, dividing the remainder between its own pockets and the customers'—who can redeem their earnings by having them posted directly to a credit card, direct-deposited to a bank account or contributed to charity.

What happens if an advertiser doesn't get any new business from CyberGold? Goldhaber answers, "If it doesn't work, I don't get paid. It's that easy."

Funded to the tune of $8 million by venture capitalists, private investors, Intel and Goldhaber himself, CyberGold went on-line in March 1997. Currently it has 1.3 million subscribers (and is growing at about 6,000 a day), revenue that annualizes to $5 million and, of course, red ink everywhere. Goldhaber is optimistic that he will hit break-even by the time he gets to 1.75 million subscribers—maybe by midyear.

As for advertisers, CyberGold has roughly 80, many of them prestige outfits like Autobytel and AT&T—although it has some oddballs too, including an outfit that peddles gourmet pizzas over the Web. Are 80 advertisers enough? "No way. I want 2,000. And I want at least as many small merchants as big ones. One of the reasons I started this business was to help the little guys."

His biggest mistake? "I figured," Goldhaber frowns, "if I built it, they [the advertisers] would come. Boy, was that pigheaded!" Now CyberGold has an expensive direct sales force on the payroll—pretty ironic for an entrepreneur who wants to cut everybody else's customer-acquisition costs.

Such flubs notwithstanding, this guy is one to keep your eye on. He's out to start a revolution that could be bad news for big media, but good news for everyone else. ■

Joseph R. Garber's e-mail address is garber@well.com

When the employees of Capital One had some things to say about their unusual working conditions, they went straight to the authorities.

The authorities, that is, who publish a survey in *Fortune*® magazine. The ones who travel the country every year and compile the 100 best companies to work for in America. After talking to 27,000 employees nationwide — including many of ours — Capital One landed prominently at #41 on the list.

Were we honored? Who wouldn't be, alongside Intel, Starbucks, Nordstrom, Sun Microsystems and L.L. Bean. Actually, truth be known, we were ranked even higher than they were.

So what does it take to make this list, let alone the top half of it? A lot.

The survey considered pay, benefits, vacation, child-care and dress code. But they also measured things that only the people who work there can describe and quantify. Like trust in management. Pride in work. Job security. Openness of communication between management and workers at all levels. And, not to be underestimated, how much fun people have at work. We scored high on all counts.

At Capital One, our associates (the word we use instead of employees) come first. All full-time associates receive medical, vision and dental coverage starting the first day on the job. Not to mention, 10 paid holidays, 3 family care days and 3 weeks of vacation the very first year on the job.

We don't just help pay for child-care, we go out and find it for everyone who needs it. And of course, there is a great 401K plan and casual dress all week long. But the ways we respect our associates go beyond that.

People at Capital One are rewarded for performance, not for the position they happen to hold. Everyone is offered stock in the company. And always at a 15% discount.

Everyone is eligible for cash incentives. Everyone is eligible for 100% tuition reimbursement when they continue their education.

So what about this concept of fun in the workplace? Capital One managers have a quarterly "fun budget" for every person they manage, to make sure work and play stay in balance.

Does all this really translate into a great place to work? Looking at the numbers, 93% of the people who work for Capital One are happy with their benefits. 90% voted this a fun place to work. And 95% say they are proud to work here.

Capital One is one of the leading credit card issuers in the country, and we continue to experience extraordinary growth. We now employ more than 10,000 people nationwide. If you're not one of us, maybe you should be. For more information on the many positions available, visit our website at www.capitalone.com.

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Capital One is an Equal Opportunity Employer committed to diversity in the workplace.
We promote a drug-free environment.

By Peter Huber

Your virtual desktop

High-speed Web connections are what begin to make credible Microsoft's earnest claim that it faces fierce competition.

I GOT A SECOND HIGH-SPEED DATA LINE to my home a few weeks ago. For $60 a month, Bell Atlantic's digital subscriber loop supplies an always-on, 1.6 megabit/second link to the Internet. This makes a page on the Web as instantly accessible as one stored on my hard drive. When I switch on my PC, I switch on the Web.

Next step: Unload software and hardware from my desktop. I used to plan car trips using a CD-based program; now it's easier just to open up www.expediamaps.com. I've wasted countless hours and dollars over the years on backup floppies, tapes and removable hard drives; now I'm signing up with Connected Online Backup (www.connected.com). Phone directory and calendar may get Webbed next, maybe through Online.briefcase, part of a suite of services marketed by Compaq. Other programs I use, like Quicken, offer dual-mode operations, with the option of mirroring files on the Web. I'm beginning to do that, too.

What's the advantage for the typical home user? Simplicity, to begin with. For lots of utility applications, it should be easier to let someone else keep things tuned. Accessibility: You can get to Web files from home, office or hotel through anything that runs a Web browser. That could be your next Palm Pilot or cell phone. Shareability: Lodging files on the Web should be a lot more convenient than e-mail tag when others have to edit your files, update your calendar or crunch your tax returns. Reliability: Servers have better hardware, power supplies and backup. If you don't trust your most precious files to one outside warehouse, use three. Loss of privacy is the one big worry. Get over it—encryption works. Anyway, you already trust your privacy to remote servers at the office, and (with e-mail) across the Web.

How far could all this go? AtBackup (www.atbackup.com) is now touting a prototype of SkyDesk, a $10-a-month "virtual desktop" service. Accessed through a browser, it's supposed to look, feel and run like a desktop PC. But entirely through a browser.

Yes, I know, the death of the PC has been predicted before, and PCs are more numerous than ever. But the Internet connections now at hand are—for the first time in PC history—as fast as those that connect your fingers, eyes and ears to the innards of your desktop machine. Your keyboard, mouse, monitor, speakers, printer and joystick can now communicate with a Web server about as fast as they typically communicate with your PC. That's true, at least, for most applications used in the typical home today.

High-speed Web connections are, in other words, what begin to make credible Microsoft's earnest claim that it faces fierce competition. Buy the fast wire, find out what it can do, and you may soon need a whole lot less operating system and computer on your desktop. Just enough, really, to link input-output devices to your high-speed modem. With that connection made, you might never upgrade your desktop again.

When the wires connecting them get fast enough, all the computers on the Web collapse into a single market. The antitrust police ought to be struggling harder with this fundamental fact. In their 1970s antitrust suit against IBM, they overlooked the rise of Intel, Microsoft, and the PC. In their 1990s suit against Microsoft, they seem to have largely overlooked the rise of Sun, IBM and the Web.

Lawyers may overlook economic facts; the market won't. The PC's future depends on applications that require data transfer rates too fast to outsource down your phone or cable lines. Data hogs, in other words: giant spreadsheets and databases, voice recognition, full-speed video. But most of those applications aren't routinely used in the home today.

Others may emerge. New machines come equipped with much faster, more capacious DVD disks, and the video-speed "Firewire" port. Bill Gates has to hope that home users quickly discover must-have applications that use them. He has to hope that our appetite for speedy connections keeps growing fast, that PC vendors can accommodate it and that phone and cable companies can't. Otherwise the home will belong to the Web. ■

Huber, a senior fellow of the Manhattan Institute, is the author of *Law and Disorder in Cyberspace* (Oxford Press, 1997); address: PeterWHuber@MSN.com Home page: http://www.phuber.com/huber/home.html

Why does the moon stay in the sky?

What makes the stars twinkle?

How does the Internet work?

Actually, it works very well. Maybe because so much of it runs on Compaq. Four out of the five most popular Web sites are powered by Compaq. Hundreds of millions of hits are handled by Compaq platforms every day. Three-quarters of top ISPs have standardized on Compaq for their Windows NT based Web hosting. And if you've ever received e-mail, chances are, we helped get to you. To find out how the Internet can help grow your business, feel free to ask the source at 1-800-AT-COMPAQ. Or visit www.compaq.com/moon.

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By Marilyn Cohen

Death puts

It's a bit macabre—betting on your own death—but these bonds give you a reward for dying.

IN THE OLD DAYS there were flower bonds. Never heard of them? You must be under 50. Flower bonds were U.S. Treasurys that you could buy at a price below par because they had very low coupons. You bought them on your deathbed because the small print said the bonds could be redeemed at par to pay your federal estate taxes, even if the maturity date was far away. Pretty cute: When you were pushing up daisies, flower bonds bloomed. Individuals loved them, but, alas, the last ones were issued in 1971, and they have matured.

But there's an updated twist on this old theme. To attract more retail investors, some enterprising underwriters are selling corporate bonds that give you a little reward for dying: Your estate has the right to put the bond back to the issuer and collect par value. Depending on what you paid for the "death put" bond and how interest rates have changed, your estate could make a nice profit by exercising the put option. The sooner you die, the greater the potential profit. And the proceeds can be used however you wish; they are not restricted to paying death duties.

It's a bit macabre, yes—betting on the time of your own death—but you are not really risking much because market conditions are such that you pay little or no premium for the death-put option. Underwriters include solid names—BT Alex. Brown; Edward D. Jones; Goldman, Sachs—and issuers include companies with investment-grade ratings. Some of the bonds are insured, so you can rest easy (as it were).

I stumbled across death puts when I read a prospectus on AES corporate bonds, 8% due Dec. 31, 2008, rated BB (just below investment grade). AES is a New York Stock Exchange-listed electric power company with plants all over the world. A section of the prospectus was labeled "Limited right of redemption upon death of beneficial owner." The bonds are selling at par. I bought them for clients because I think AES is a good candidate for a credit-rating upgrade in the next 12 to 18 months.

Another good one: the Alabama Power 6.5% bond due Sept. 30, 2018, insured by MBIA and rated AAA by Standard & Poor's. It's selling at 98.5 cents on the dollar and pays interest quarterly. Also good: the Salomon Smith Barney Holdings 6.25% bond due Nov. 13, 2013, rated A. It sells at 97 and pays monthly. Other issuers include Household Finance, McDonnell Douglas Finance, CMS Energy *(see story, p. 64)* and the Bank of New York. My quick survey of underwriters suggests that there is somewhere between $3 billion and $4 billion worth of death-put bonds outstanding, and the number is growing. Especially while the market is not discounting the put option, these bonds can be good deals:

- Your heirs are protected against rising interest rates. Someday rates will go up again, and with a death put your heirs won't have to wait for the bonds to mature to claim the full value.
- Having ready cash to pay death taxes is a swell advantage; your estate lawyer certainly will agree.
- Your heirs will bless you because they won't have to sell the bonds under pressure. I've been in the awful position of having to liquidate a client's odd lots into a poor market when finding good bids is impossible and markdowns run as high as four points per bond.
- Many of these bonds pay interest quarterly, which has the effect of adding five or ten basis points to your effective yield.
- They are readily salable (albeit not necessarily at 100 cents on the par dollar) if for some reason you need the cash or no longer value the put.

But with any of these bonds, you've got to get the prospectus and read the legalese because issuers have differing rules on when and how you can cash in. For example, you might not be able to use the death put if, when you buy the bond, you have a terminal illness and it kills you in less than a year. Some bonds are not puttable under any circumstances in the first year after issuance.

There are individual investor limits—AES for example, will redeem no more than $25,000 per owner—and companies are protecting themselves against disease epidemics that could turn death puts into a financial disaster. AES limits its overall exposure to $4 million worth of bonds annually. (Amounts over that will be honored, but in a subsequent year, first-come, first-served.)

You still can't buy salvation, friends. But at least you can buy a bit of redemption. ■

Marilyn Cohen is president of Envision Capital Management, Inc., a Los Angeles fixed-income money manager. envision@ix.netcom.com

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By David Dreman

Bubble psychology

Individuals have found nirvana: a market that can only go down for microseconds before bouncing to new highs.

THE DOW IS HEADED for 1,000,000. That's what investors expect, although they probably don't know they expect it.

Just how unreasonable are investor expectations? Try this: A recent survey by the Institute of Psychology & Markets in Jersey City, N.J. (of which I am a director) found that the average mutual fund investor expects an 18.1% annual return on his capital over the next ten years. To achieve this return, the Dow Jones industrial average would have to rise to 42,000 in ten years, assuming the dividend yield stays put at 1.7%. At the same pace, the Dow would climb to 1,000,000 in 31 years.

No, it's not unreasonable to expect stocks to return 18% in good years—that's what the market has averaged over the past decade—but it's folly to assume, as so many market newcomers assume, that this is the norm.

The S&P 500 index is trading at 32 times trailing earnings, a multiple that could only be justified if earnings were to shoot ahead at a better-than-20% rate for years. But rather than soaring, earnings were flat last year and are likely to advance, at best, 8% in 1999. How out of kilter is the S&P's current valuation? With hindsight, the market was wildly overpriced just prior to the 1929 crash, when it traded at a P/E of 22.

What you are witnessing today is a full-scale investor mania of the sort seen in the tulip-buying frenzy of 1636 or the South Sea Bubble of 1721. The bubble is visible almost everywhere in the market, but it is most conspicuous in technology stocks. Twenty-five large technology issues accounted for 93% of the Nasdaq's sizzling 40% gain last year, and 100% of its 5.8% gain year-to-date. By comparison, the average Nasdaq stock—and there are 4,460 of them—was down 3% in 1998.

Don't worry about these statistics, say the bulls: We are entering "a new era"; there is a shortage of stocks; the enormous inflows of new money into equities must push prices higher. They said all of the above prior to the 1929 and 1987 crashes.

Along with many others, I underestimated just how powerful the mania would become. Buying skyrocketing stocks has become a self-fulfilling prophecy. Who would have thought even a year or two back that there would be 5 million brokerage accounts on-line today? Individual players, often on margin, account for more than 50% of the volume in most new issues and sometimes in such established companies as Dell Computer, Cisco Systems, 3Com and other similar stocks. Many of these traders have discovered their nirvana—a place where they will triple or quadruple their capital in the next several years, in a market that can only go down for microseconds before bouncing to new highs.

The stunning rise in these prices has also energized dozens of mutual fund managers who previously stayed aloof from the bubble. Even stately Magellan, the nation's largest mutual fund, now boasts it has Lucent, as well as other highfliers like Cisco Intel and America Online, in its top ten.

What makes bubbles possible? It's that humans are not good statistical processors. For example, we tend to forget that red-hot new issues—whether they were computer-leasing or semiconductor stocks in the 1960s or PC companies in the early 1980s—have provided horrendous returns on average. A study of new issues between 1970 and 1990 showed a median return of minus 45% over five years. But people ignore the averages while focusing entirely on the memorable exceptions, like Microsoft.

Another cognitive error: recency. You extrapolate the recent past into the future. The current bubble fits in well with this phenomenon.

Contributing to all this is what the experts in psychology call contagion. In his recent book, *Thought Contagion*, Aaron Lynch explains how an epidemic of delusion can spread. Amid constant coverage by the TV market channels, the press and other media, as well as dozens of Internet chat rooms and billboards, the transmission rate is startlingly high. Add to this the profits most folks are currently making and it's easy to see just how powerful the forces pulling additional investors into the mania are. I can't say just when it will end, only that when it does, the losses in many stocks will reach 80%.

I'm not counseling that you go to cash. You can still keep your head, as all about you are losing theirs. Stick to solid earners trading at below-market multiples. *First Union* (51, FTU), *RJR Nabisco* (26, RN), *Tenet Health Care* (20, THC) *and Toys "R" Us* (15, TOY) fit the bill. ■

David Dreman is chairman of Dreman Value Manager[illegible] City, N.J. His latest book is *Contrarian Investment Strategies: The Next Generation.*

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By Charles Babin

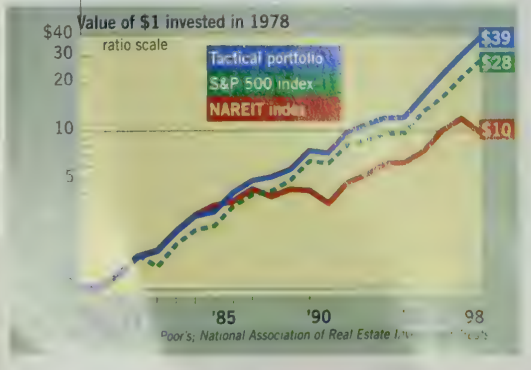
A new way to play REITs

Thinking about REITs? You've got to know when to hold 'em and know when to fold 'em.

YOU CAN'T BLAME INVESTORS for being fed up with real estate investment trusts. The average REIT stock's price fell 24% last year and has fallen another 5% so far this year. Even with REITs' relatively high yields, now averaging 7.7%, many investors are under water. And the frustration isn't new. Since 1978 (the first year for which comprehensive data are available), REITs have seriously lagged the S&P 500 index, returning 13% per year on average versus the S&P's 18%, including dividends. Maybe you think investors have been compensated for that lower return with lower risk? Nope—REITs have been more volatile, too.

What's especially maddening about REITs is that they represent tangible, income-producing assets—unlike the phlogiston represented by many high-flying stocks—yet many investors can't seem to wring a buck out of them. It's tempting to just walk away. But consider: When an asset class offers high yields and the potential for great appreciation (like 1996's 36% total return), there must be a smart way to use it. I believe I've found such a way, based on trading REITs tactically.

Before I fling the curtain aside to reveal my strategy, we should consider the question of risk. Many investors think REITs reduce risk because they don't move in tandem with common stocks. It is true, for example, that the correlation between stocks and REITs (based on annual total returns of the S&P and the National Association of Real Estate Investment Trusts index) has been fairly low, around 0.4 since 1978. But that correlation is far from zero. Not only are REITs more volatile than stocks; they usually move in the same direction (though not last year).



REITs don't cut your risk enough to justify their long-term returns. So why buy them? I wouldn't—at least not as long-term holds. You've got to play them. I decided to explore the relationship between REITs' returns and the overall economy. What do you know—there's a pattern. Since 1978, whenever annual GDP growth has been relatively robust (exceeding its own 20-year average), REIT stocks have lagged common stocks *in the following year*, returning an average of only 6% compared to the S&P's 19%. But when GDP growth has been relatively anemic (lagging its average), the reverse has been true and REITs have beaten the S&P in the following year. Indeed, the average total return on REITs following the nine years when GDP growth fell short of its 20-year average was a handsome 21%, versus 17% for the S&P.

Look at the chart. A dollar invested in 1978 in REITs would have grown to $10 by the end of 1998; in the S&P, to $28. Now imagine an investor who chose between the two asset classes each year based on the previous year's GDP growth, as described above. His dollar would have soared to $39. Wow! Yes, the simulation assumes extremely aggressive trading and ignores commissions and taxes. But it illuminates the apparent predictive power of GDP growth on REIT returns.

Maybe this remarkable relationship exists because investors think of REIT stocks as pure real estate, the kind of hard assets you might scurry to in a slowing economy. REITs really aren't that, exactly; they are a mix of real estate, complicated interest-rate plays and operating businesses.

My main concern, though, is the bottom line for investors. Last year's GDP growth, roughly 3.5%, was comfortably above the current average of 2.7%. So if history is a guide, REITs will lag the S&P this year; I wouldn't buy now despite the tempting yields. I wouldn't sell, either. But I'd be on alert: This year's consensus GDP forecast calls for a paltry 2.4% growth. If the forecast pans out—and you'll have a good idea well before the year ends—it will be time to buy high-quality REITs. My colleague David Smith, who oversees REITs at SSgA's Tuckerman Group, favors office REITs like *Boston Properties* (33, BXP), *Spieker Properties* (36, SPK) and *SL Green Realty* (20, SLG). ■

Babin is a principal of Boston-based S[illegible]ct Global Advisors where he oversees asset management strategies for the Office of the Family Advis[illegible]

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By Robert S. Salomon Jr.

Profitable prosperity

THERE IS ONE CARDINAL PRINCIPLE on which all investors readily agree—earnings expectations drive stock prices. Disappoint those expectations and prices collapse. Exceed them and prices climb. This is equally true for the market as it is for individual stocks.

Why is this important to reflect on now? Because the consensus viewpoint is that earnings will be disappointing this year—and the consensus is, I think, far too pessimistic.

Experts making top-down forecasts for the S&P 500 (experts, that is, who are market strategists as opposed to industry analysts) predict flat earnings in 1999. The most significant factors contributing to this subdued forecast are the continued lack of pricing power in the manufacturing sector and rising labor costs. Despite these concerns, my belief is that this expectation will prove to be way too conservative and that profits will instead be up, at least 8%. If you buy my profit outlook, you won't be terrified by the market's steep multiple, 32 times trailing earnings. Here's my justification:

> Most economic forecasts for this year are just a simplistic extrapolation—and far too pessimistic.

■ Real growth in the U.S. economy should be 3% this year, extending the longest recovery in the postwar period. The turn of the century could easily see a global boom resulting from the lagged effects of interest rate cuts and monetary stimulus around the world.

■ Business consolidations will eliminate substantial redundancies in many industries. Even though this has been going on for some time, there are two significant new entrants—paper, with the merger of International Paper and Union Camp; and oil, with the merger of Exxon and Mobil. These consolidations are an attempt to maintain margins in an era of declining commodity prices.

■ Massive spending that has been going on for several years to remedy Y2K problems will begin to dissipate, creating an unexpected dividend spread over the last half of this year and the first half of next.

■ Technology will deliver an important, albeit difficult to measure, productivity gain to the service sector. This gain will hold unit labor costs in check.

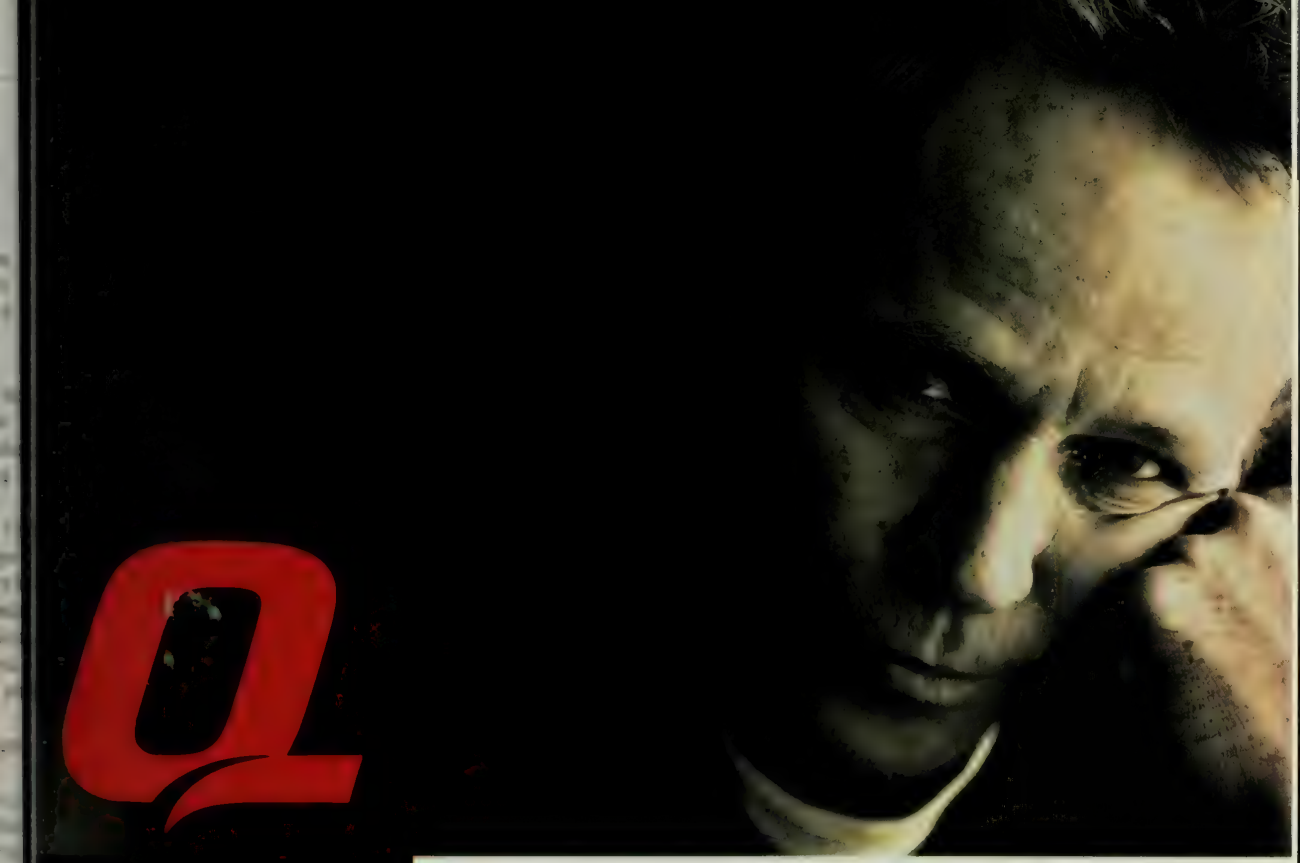
■ Last year profits were depressed by specific events not likely to recur any time soon—the GM strike and the losses sustained by financial intermediaries resulting from the Russian default and widening credit spreads.

■ The collapse in oil prices, although it will depress profits for the oil producers, will act like a tax cut for individual consumers, stimulating demand. For industrial consumers, fuel and raw material cost declines will enhance profit margins.

Last year the economy grew nicely and produced no improvement in profits (i.e., a profitless prosperity). This has led to similar forecasts for this year, really just a simplistic extrapolation. The rhetoric explaining this forecast argues that low or nonexistent inflation is bad for profits. On the contrary, lack of pricing flexibility causes managements to focus even greater attention on operating efficiency. It is important to note that profits produced from improved productivity are worth more to investors because they represent higher quality and greater sustainability than those produced from raising prices. Anyone who doubts this need only compare valuations in the 1970s with those in the 1990s.

The sectors fueling the general increase in profits are technology and financial services; these sectors also have the greatest potential for pleasant earnings surprises. I recommend *Cisco Systems* (99, CSCO), *Compaq Computer* (42, CPQ), *Lucent Technologies* (98, LU), *Gateway 2000* (68, GTW) *Xerox* (115, XRX), *Allstate* (38, ALL), *American Express* (102, AXP), *Citigroup* (53, C) and *Morgan Stanley Dean Witter* (90, MWD). These high-quality stocks ought to appreciate by 20% or more, on average, over the next year. ■

Robert S. Salomon Jr. is principal and cofounder of Stamford, Conn.-based STI Management. Research analyst: Deborah H. Tarasow.



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Honeywell's flight pattern

BOEING'S TRAVAILS in Asia have dragged down shares of its suppliers, including Esterline Technologies, recommended here in the Nov. 2 issue, and Honeywell Inc. At a recent $73, Honeywell is off 24% from its May high.

Esterline has traded up 33% and is now up 9%. We think Honeywell (NYSE: HON) is another buy.

Of Honeywell's $8.4 billion in revenues last year, 28% came from aerospace, with Boeing contributing 6%. The other 72% came from all manner of electronic things, from programmable home thermostats to devices that control the moisture in papermaking machines.

DENNIS GALANTE PHOTOGRAPHY

Salomon Smith Barney's Jeffrey Sprague predicts that sales to Boeing will drop from $500 million in 1998 to $300 million in 2001. But Honeywell could make up all of that decline with increased sales to other airplane makers, such as Airbus and Gulfstream.

The company, meanwhile, is poised to reap significant revenue from its new flight-control equipment. Honeywell's SLS-2000 uses global positioning satellites to tell an onboard navigational computer where a plane is in relation to the runway and other planes, with astounding accuracy. Pilots can thus pick their own flight paths rather than rely on directions from radar-based flight-control operations on the ground.

Honeywell charges from $200,000 to $400,000 per plane to install the new gear, and there are 14,000 planes in the skies right now. Newark's airport already supports the system. Last year Continental Airlines was the first to use it to land a regularly scheduled flight there.

Sprague predicts earnings of $5.50 a share in 2000. At $73, Honeywell trades at 13 times that sum.

–STEPHANE FITCH

Momentum medicine

Sepracor's shares have been on a rampage, but its bottom line is another matter.

The Marlborough, Mass. specialty-pharmaceutical company (Nasdaq: SEPR) has the patent rights to single-isomer and active-metabolite versions of 26 existing drugs. That means Sepracor has two different techniques for creating purer forms of those drugs. Sepracor can take an existing blockbuster drug, improve it by, say, reducing side effects, and then license the marketing rights of the new drug (with its own patent) to the original drugmakers or others.

Hoechst's Seldane got a new lease on life when Sepracor licensed the patent rights for a new metabolite version called Allegra. Eli Lilly's Prozac franchise also may be extended, thanks to Sepracor's single-isomer version. Lilly agreed to pay Sepracor up to $90 million plus royalties for marketing rights. Schering-Plough paid Sepracor for the rights to an active-metabolite version of its allergy remedy Claritin.

In the past year Sepracor's stock has tripled to a recent $115, giving it a market cap of more than $3 billion. One big net buyer: Fidelity funds, which raised its stake from 8.8% to 11.8% between October and January. We think you should be selling.

The bulls have to be awfully patient. Sepracor lost $27 million on $15 million in sales in 1997, and in the first nine months of 1998, it lost $59 million on $14 million in sales. One problem: Sepracor won't see royalties for awhile, and they're likely to be smaller than hyped. Lilly and Schering are finding their own ways to extend the life of their blockbusters already. Sepracor also must win FDA approval and managed care support of all of its new versions. "It all adds up to years before Sepracor sees positive earnings," says Bear, Stearns analyst David Maris.

–STEPHAN HERRERA

Sepracor: Proof that not all bubbles are on the Web?

Cheaper than Intel

GALILEO TECHNOLOGY, a specialized chipmaker in Karmiel, Israel, got into hot water last summer when it was late with new version of its networking chip Its stock fell from $33.63 to $9.5(in the space of three months. By October the stock sank to $7. The company did not deserve the shellacking it took on Wall Street.

The company (Nasdaq: GALTF) makes three types of chips: system controllers that are key building bloc in networking equipment and are pu chased by big customers like Cisco Systems, connection chips that go in so-called network switches and a chi that connects a local area network tc the Internet. The delay was on the GalNet II chip, which is used in upgrades of network equipment fro 10 megabits per second to 100.

The GalNet II problem has since been fixed. Galileo earned $15.5 m lion in fiscal 1998 (ended Dec. 31) on sales of $52 million. In fiscal 19 it should be able to earn $21 millic or $1 a share, says Kevin Landis, manager of three technology funds

Firsthand Funds. That makes oday's price of $20, or 20 times the andis forecast, look low. Intel trades 27 times expected 1999 earnings.
–Om Malik

Read all about it

Weakened demand from national advertisers during 998 hurt many media stocks. One ndeserving victim: Dallas-based .H. Belo (NYSE: BLC).

Ad linage at the flagship *Dallas Morning News* was down 2.3% in 998, but Belo's other assets were oing fine. Newspapers account for 5% of its $1.4 billion in 1998 revnues, but Belo also owns 17 televion stations, in cities like Dallas nd Seattle. Most are ranked numer one or two in their markets.

Despite weak advertising at the *Morning News*, William Meyers, nalyst at BancBoston Robertson tephens, is recommending the ock because he is bullish on Belo's stations. Among them are five BC affiliates that will broadcast the mmer Olympics next year and our others that will carry the Super owl. It has also hired 44 salespeoe to bring in more ads.

Don't write off Belo's newspaper usiness. The company has offered urly retirement to more than 200 mployees and has cut its overall capil spending by $30 million. Both the *Morning News* and the recently quired *Providence Journal-Bulletin* ould benefit from millennium-lated advertising spending.

Belo's stock hovers around $18, own from $28.38 a year ago. t that price, with $1.6 billion of ebt thrown in, the market is putting $3.8 billion enterprise value on elo. That sum is 9 times the comany's 1998 operating income (net efore depreciation, interest and xes). Compare Hearst-Argyle, hich is trading at 13.3 times 1998 *o forma* operating income.

Belo Chief Executive Robert echerd thinks his stock is a steal. n the last year the company repurhased 7 million shares at an averge $19.29 each and will likely purhase another 3.5 million shares.
–Carrie Coolidge

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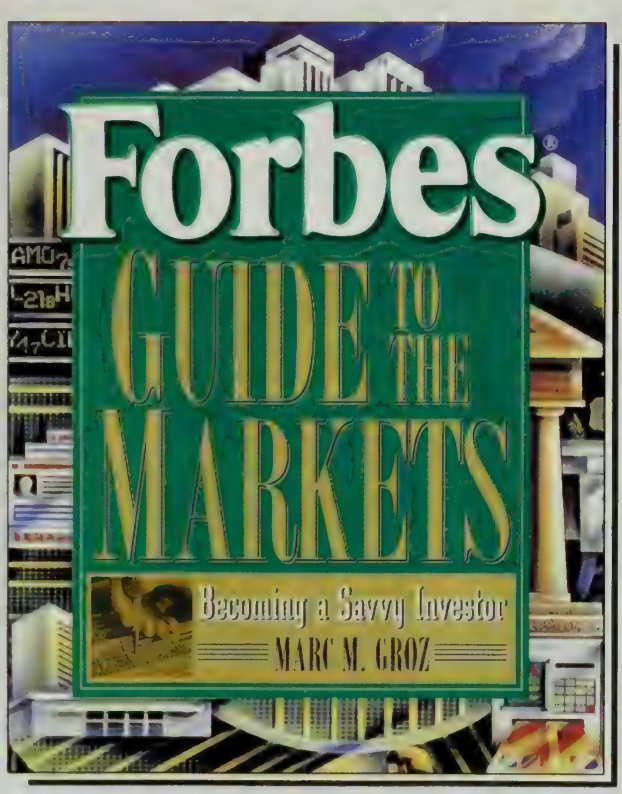

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nternet stocks have driven the Nasdaq market into record territory, ut Philip J. Orlando, chief investment officer at Value Line Asset Management, expects 80% of today's ublicly traded Internet companies to e out of business within the next five ears. He thinks that most portal ompanies, on-line retailers and electronic commerce companies are rossly overpriced.

Orlando sees opportunities in the nternet, but they are with companies that are profiting from the rowing usage of the Internet. Two xamples: America Online (AOL 158) and Cisco Systems (CSCO 99). Orlando values both stocks at ast 25% higher than their current rices. He expects five-year average arnings growth of 48% for America Online and 30% for Cisco.

Within the past two calendar years these six insurance companies converted from mutuals—where policyholders own the equity—to stock companies. Although these stocks are up an average of 60% since they went public, they still look attractive. The median company is expected to post earnings growth of 13%. These stocks sell at an average of 13 times estimated 1999 earnings. In contrast, the S&P 500 has an estimated multiple of 24. The cheapest stock: AmerUs Life Holdings, which has an estimated P/E of 7.

The feeling is no longer mutual

Company	Recent price	1999 est P/E
AmerUs Life Holdings	$17.81	7
MONY Group	24.81	12
Nationwide Financial Svcs	45.56	16
Old Guard Group	12.88	13
Scpie Holdings	29.13	11
Trigon Healthcare	34.63	18

Source: IBES Express.

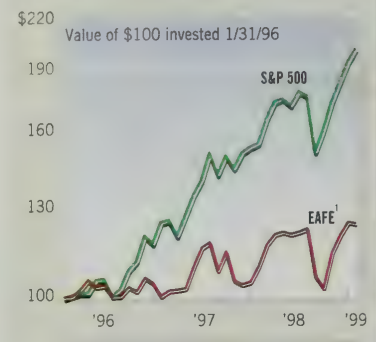
Index or investment	2-week change	% change from 1 year ago	% change from 5-year high
Barra All-US index	–1.5%	15.6%	–2.4%
S&P/Barra Growth index[1]	–1.6	34.6	–2.9
S&P/Barra Value index[1]	–0.1	9.7	–4.1
Dow Jones industrials	0.9	11.9	–2.9
S&P 500	–0.9	22.4	–2.0
NYSE	–1.0	10.7	–3.5
Nasdaq	–2.9	40.3	–4.2
PSE Tech 100[3]	–3.0	50.4	–4.3
EAFE[4]	–2.5	5.3	–7.3
CRB futures index[5,6]	–1.1	–19.2	–28.5
Gold[7] (Comex spot)	1.3	–3.6	–30.5
Yen[7] (per $US)	–1.5	–8.1	–22.2
Oil (W Texas Intermediate)	–4.8	–25.8	–55.5

Buying	Recent price	Market value ($mil)	1999 EPS[8]	Selling	Recent price	Market value ($mil)	1999 EPS[8]
Alkermes	$28.50	$603	$–1.18	Aware	$34.25	$710	$0.14
Citigroup	53.63	121,834	3.52	BEA Systems	17.31	1,304	0.24
Foundation Health Systems	8.56	1,046	1.16	Budget Group	14.44	519	1.67
Magellan Health Services	8.19	259	0.99	Cox Radio	45.81	1,305	0.98
Wisconsin Central Transportation	15.47	791	1.57	Landauer	30.00	258	1.61

Best	2-week change	Change since 12/31/98	Worst	2-week change	Change since 12/31/98
Oilfield services	8.9%	–2.0%	Tobacco	–16.9%	–22.0%
Apparel, textiles	6.8	12.6	Water transport	–11.4	–13.8
Air transport	6.7	1.3	Electric utilities	–7.5	–14.6
Pollution control	6.7	9.1	Agriculture, food	–6.4	0.3
Misc mining metals	6.1	–5.0	Gas utilities	–5.7	–0.1

s for period ending 2/11/99. The Barra All-US price index consists of all publicly traded U.S. common stocks for which price quotations are available and ordinary shares of foreign stocks traded on U.S. markets. ADRs, REITs and closed-end funds are ded. [1]Total return of more than 150 large-capitalization stocks that have high historical earnings growth and have predicted above-average earnings growth. [2]Total return of more than 300 large-capitalization stocks characterized by low price-to-book s, high yields and low price-to-earnings ratios. A price-weighted index of 100 widely followed U.S. technology stocks. Base value 12/31/82 = 50 (adjusted). [4]A dollar-denominated capitalization-weighted index of more than 1,100 foreign stocks. Source: gan Stanley Capital International. [5]Index of 21 commodity futures. [6]Source: Bridge-Commodity Research Bureau. [7]Buys and sells are tabulated by fastcheck.com, a proprietary model from the Mutual Discovery Network. For an update on the performance ese stocks see our Web site at www.forbes.com/wallstreet. [8]Consensus estimate. [9]Shows return after controlling for other influences, including company size, value and growth characteristics. Multi-industry firms have proportional contributions in r more groups. *Principal sources: Barra, Inc.; IBES Express.*

Foreign vs. U.S. markets



As of 2/5/99	S&P 500	EAFE
P/E	32.5	28.3
Yield	1.3%	1.8%
Price/book	6.6	2.7

Developed markets

Market	—Price change[2]— 3 months	12 months	P/E
Finland	30%	100%	24
Ireland	18	21	19
Sweden	13	14	26
Australia	12	9	22
Belgium	9	50	26
Norway	2	–20	14
Portugal	–1	10	22
Denmark	–2	–2	23
Austria	–8	–11	15
Hong Kong	–11	–13	16

Emerging markets

	—Price change[2]— 3 months	12 months	P/E
Morgan Stanley Capital International indexes			
Emerging (EM)[3]	–2%	–26%	22
Emerging (EMF)[4]	–2	–27	21
Best and Worst Markets			
S. Korea	51	48	NM
Greece	42	105	32
Egypt	31	–3	12
Taiwan	–13	–32	22
Brazil	–34	–52	9
China	–37	–53	8

Morgan Stanley's European growth stocks index of 200 companies is down nearly 6% in price (U.S. dollars) since Jan. 1. But William P. Sterling, global strategist at Credit Suisse Asset Management in New York, thinks the group is poised for a comeback. Sterling cites several reasons for his optimism. He thinks that the European Central Bank is likely to cut interest rates in 1999, and he believes that the introduction of the euro is creating a favorable environment for cross-border mergers and acquisitions. European investors will respond to these changes, according to Sterling, by reducing their bond holding and bidding up equities.

In particular, Sterling likes two Swiss pharmaceutic firms: Novartis (ADR price $89) and Roche (ADR pric $127). "Baby boomers are graying and demanding mo health care," says Sterling. Profits at Novartis—forme by the 1996 merger of Sandoz and Ciba-Geigy—a expected to rise from $3.18 a share in 1998 to $3.67 1999, according to estimates from IBES. The 1999 IB forecast for Roche: a 13% gain, to $4.02 a share.

Company/country	Business	Price	3-mo price change	1999 est P/E
JG Summit/Philippines	multicompany	$0.09	125%	5
Infosys Technologies/India	software	58.57	105	41
NHK Spring/Japan	auto parts	4.38	103	29
Rogers Communications/Canada	tel & broadcasting	16.50	97	NM
Ssangyong Investment & Secs/Korea	financial svcs	6.28	66	35

Company/country	Business	Price	3-mo price change	199 es P/
Wei Chuan Food/Taiwan	food processing	$0.60	–73%	6(
Light Servicos de Electricidade/Brazil	electric utility	60.00*	–61	2
Siderar/Argentina	steel	1.50	–46	5
Enterprise Oil/UK	oil & gas	3.67	–43	2
SEB/France	appliances	58.46	–39	1

Company/country	Business	Price	Price/ book	1999 est P/E
Bharat Petroleum/India	oil exploration	$4.50	1.4	4
Eletrobras/Brazil	electric utility	14.19*	0.1	4
Tamsa/Mexico	steel pipes	6.94	0.6	4
Cemex/Mexico	cement	2.57	1.3	5
Samsung Heavy Inds/S. Korea	machinery	4.97	0.8	5

Company/country	Business	Price	Yield	19 es P/
Hollandsche Beton/Netherlands	construction	$9.99	7.2%	
Wing Lung Bank/HK/China	banking	2.68	7.2	
Coats Viyella/UK	textiles & apparel	0.60	6.8	
Fag Kugelfischer/Germany	roller bearings	7.51	4.6	
Usinor/France	steel	13.49	4.2	1

Note: Data for period ending 2/5/99. Selected stocks have a market capitalization of at least $300 million. All prices are in U.S. dollars. *Per 1,000 shares. [1]Shows price cha of the Morgan Stanley Capital International EAFE index of foreign stocks converted into U.S. dollars. [2]Performance numbers reflect both local price change and curre fluctuation. [3]Index of stocks available to foreign and domestic investors. [4]Index of stocks available to foreign investors. NM: Not meaningful.
Sources: Morgan Stanley Capital International via OneSource Information Services; Bloomberg Financial Markets; Forbes.

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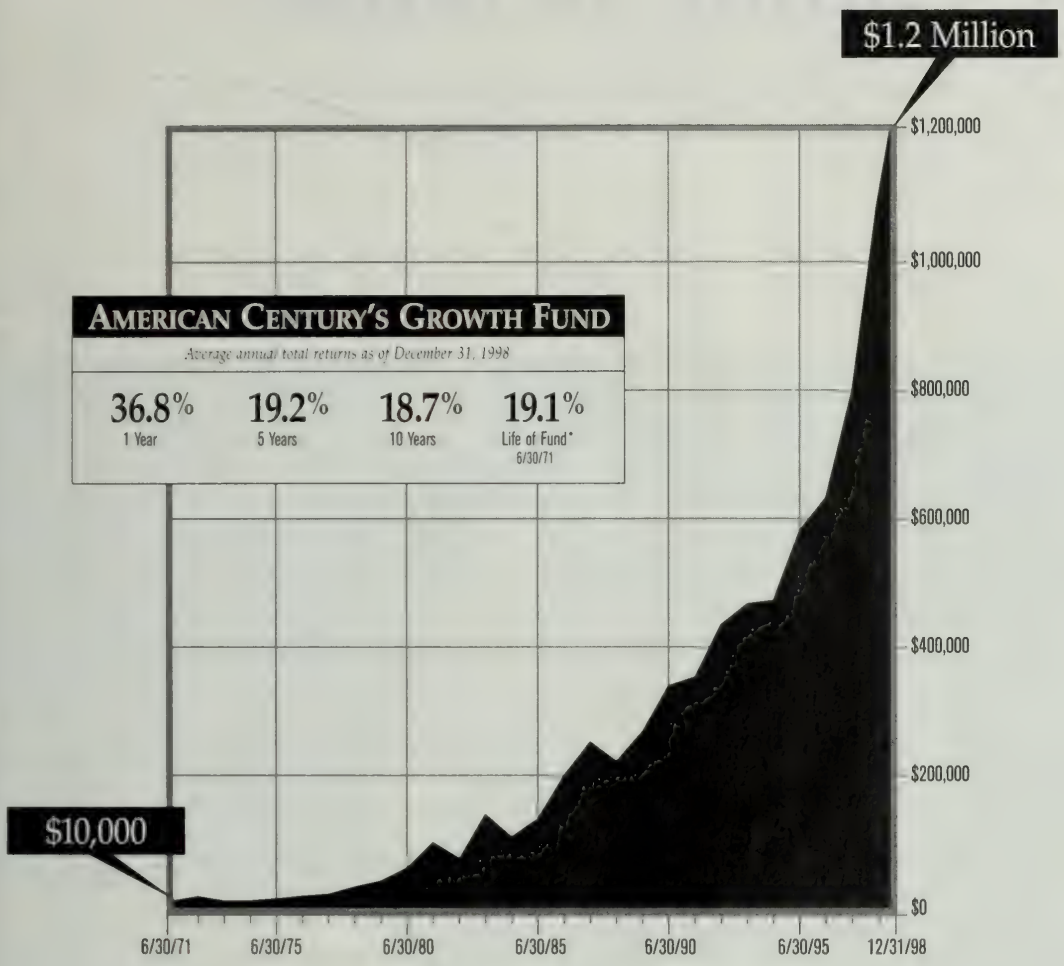

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Defending defense

Defense stocks have been in the tank since the mid-1980s. Tocqueville Fund's Robert Kleinschmidt is betting they're about to rally.

By James M. Clash

LIKE ANY SELF-RESPECTING value investor, Robert Kleinschmidt loves a bit of bad news—the kind that cuts the legs out from under a stock so he can buy it cheap. He fondly calls the stocks in his $60 million Tocqueville Fund "black-and-blue chips." The fund itself has suffered, relatively speaking, along with other value-oriented funds, gaining an annual 14% over the past ten years. That's about five points behind the growthy, pricey S&P 500.

But Kleinschmidt has beaten other midcap value funds, on average, by a point. His portfolio has excelled in down markets; in fact, Tocqueville beat its peers by 9.5 points in 1990—gaining 1.5% when the average midcap value fund lost 8%. Kleinschmidt also manages about $1 billion for wealthy private clients.

His roster of wounded souls currently includes oil-service companies (Baker Hughes, down 62% from its 52-week high), chemical producers (Olin, down 52%) and natural resource companies (Homestake Mining, down 38%). But his newest patients—what he's buying now—are defense stocks. Remember them?

Since 1985 U.S. defense spending on weapons and other military goods has been cut by 75% in real terms. Foreign spending has declined as well. This has added up to a bad time for military hardware makers like Northrop Grumman, Lockheed Martin and Litton Industries, each now trading at around half the S&P 500's trailing price-to-earnings ratio of 28.

Those defense spending declines, if you recall, are also known as the "peace dividend" created by the end of the Cold War. But the 49-year-old Kleinschmidt, who remembers the duck-and-cover nuclear attack drills of the 1950s, is convinced that the days of the peace dividend are ending. "There's growing consensus that just because the Soviet Union has fallen, it doesn't mean the U.S. and its citizens are safe," he says. "You have ex-Soviet satellites with all their decentralized nuclear weapons, North Korea and its nuclear capability, India and Pakistan, Iraq and just plain rogue terrorism." President Clinton has proposed a $12 billion defense spending increase for the year 2000. There's no reason he can't get Congress to go along.

Kleinschmidt also makes the case that the past decade's consolidation in the defense industry will give companies more pricing power once th procurement money starts flowin There have been the plain-vanil takeovers—Northrop of Grumma Martin Marietta of Lockheed. Klei schmidt also notes that in the 198 it wasn't unusual for conglomerat like General Motors and Chrysler own defense divisions—orphan really—or for half a dozen compani to compete for major governme contracts. By now most of th orphans have been spun off a bought by core defense compani (GM's Hughes Electronics Raytheon; Rockwell Internationa aerospace and defense unit Boeing).

Also, says Kleinschmidt, onero R&D cost overruns on new proje are now absorbed by the gover ment. In the old days contracto were expected to take the hit. Tra lation: more-predictable earnings.

Kleinschmidt has 6% of his po folio in defense stocks now and sa he may go as high as 10%. B Stealth bomber maker Northr Grumman, whose proposed merg with Lockheed Martin was quash last summer by the Justice Depa ment, is trading at $63—less th half of Lockheed's offer price. T

Goal-line stand

Company	Recent price	Price/ cash flow	Price/ earnings Trailing*	Price/ earnings 1999†	Price change vs S&P 500 1-year	Price change vs S&P 500 5-year
Boeing	$36	14	33	20	–45%	–113%
B.F. Goodrich	34	7	11	10	–48	–104
Litton Industries	57	8	15	14	–24	–70
Lockheed Martin	37	6	12	11	–55	NA
Newport News Shipbuilding	27	7	15	14	–15	NA
Northrop Grumman	63	6	12	11	–72	–100
Raytheon	55	12	17	15	–20	–86

*Based on last four quarters' earn[illegible] †Estimated 1999 earnings. NA: Not applicable.

Sources: Baseline, Forbes

While the S&P 5 has charged ahe the past five yea defense stocks have stalled. Is it time for a rally?

rice is also just 6 times cash flow (in ne sense of earnings plus depreciaon and amortization). Compare the andard & Poor's 500 index, which ades at 16 times cash flow.

Kleinschmidt trusts defense comnies' price/cash flow ratios, rather an their price/earnings ratios, ecause industry consolidation has eated a great deal of goodwill that, hen amortized, understates earngs. In Northrop Grumman's case, e pegs the goodwill at about $3 r share.

Besides Hughes Electronics, Raytheon has bought Texas Instruments' and Chrysler's defense-electronics units. At $55, Raytheon trades at just 12 times cash flow. "Electronics technology is the reason our stuff is more lethal than anyone else's," says Kleinschmidt. "And Raytheon is by far the biggest producer."

Boeing, with only about a third of its revenues from defense, is not such a pure play. But, after buying McDonnell Douglas, it is the largest contractor of military aircraft. At $36, or 14 times cash flow, it's not as cheap as the others, either. But Kleinschmidt likes it. "Boeing is a double-barreled play," he says. "Commercial airline orders are backlogged, and we think management is finally getting its arms around costs. When that becomes clear to everybody, the stock will trade ten points higher."

We've listed some more of Kleinschmidt's picks in the table. If you're interested in his fund, wait a month or so; directors will vote in March on a proposal to scrap the 4% load. ■

Tocqueville Fund's manager Robert Kleinschmidt: The real "peace dividend" is undervalued defense stocks.

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NO PLANE NO GAIN

Graham.RIP

Sign of the times: An investment company cofounded by the famous value investor Benjamin Graham is trying to turn itself into an Internet play.

By Thomas Easton

SEX APPEAL in the mutual fund world typically comes from huge returns. Faced with years of poor performance, the $8.5 million American Diversified Global Value Fund is trying a less metaphorical approach.

In a German TV advertising campaign for the investment firm running the fund, a nude woman slowly unfolds across the screen. Her cupped hands open to reveal a shimmering spherical object that, after having spoken to the producers, we can tell you is an apple. Then comes the punch line: *intelligent investieren*, or, to translate, "invest intelligently."

The similarity of the line to a classic book by Benjamin Graham, *The Intelligent Investor*, is no coincidence. It turns out that American Diversified Global was until recently named the Rea-Graham Fund.

Graham, who taught business at Columbia University and died in 1976, is justly famous. He counseled investors to stay away from stock fads and focus on what a company would be worth to an acquirer or liquidator. His disciples include the brilliant portfolio managers running Berkshire Hathaway, the Sequoia Fund and Tweedy, Browne Co.

But if the man is distinguished, the fund he cofounded with James Rea, an engineer who happened to live in California close to where Graham moved in retirement, is not. Rea-Graham started out as an investment partnership. In August 1982, six years after Graham died and at the dawn of an extraordinary bull market, Rea converted the portfolio to a mutual fund.

The fund is a clunker. Under Rea, and, after his death in 1995, his son James Jr., the fund has eked out a 7% average annual return. That isn't even close to the 19% you could have earned on an index fund.

The fund's assets peaked in the late 1980s at $50 million and have recently been going out the door at a rate of $2 million a year. But James Rea Jr., 43, did not simply fold up shop. In early 1998 he hired a new investment subadviser, Ladas & Hulings in Scottsdale, Ariz., which has put what's left of the fund into a plausible collection of blue chips like IBM and Exxon. Then Rea sold control of the fund to a group of mostly German investors who see great potential in it.

The Germans want the fund to be part of a transatlantic investment business that will include a publisher of business books and a European on-line brokerage. They have raised $16 million of seed capital, picked the jazzy name Amdiv.com for the venture and put its headquarters in Los Angeles.

"People are more interested in Graham in Germany than in the U.S.," explains Peter Hartmann, 44, the German-born chairman of Amdiv. "We want to make dollars from deutsche marks."

Amdiv's publishing division has cosponsored a German version of *The Intelligent Investor* and also has an agreement to publish German editions of rather more action oriented books—like *How to get Started in Electronic Day Trading*.

The on-line brokerage is just getting started in Berlin. But until next month, at the earliest, the only facet of the operation bringing in any revenue is the old mutual fund. Net of what that subadviser charges, the fund generates fees that amount to all of $50,000 a year. Amdiv's expenses are running at a $5 million annual rate.

None of this stopped Amdiv from filing with the Securities & Exchange Commission for an initial public offering of its shares. If the offering goes off at its expected top price of $14, the new investors will see an immediate 3-to-1 dilution of their cash.

Would a value investor buy a stock like this one? We posed the question to James Rea Jr., who wound up with shares in Amdiv plus a three-year employment contract paying $165,000 annually. Rea notes that the eminent value investor Warren Buffett migrated from tangible assets to goodwill in his assessments of value. Amdiv goes one step further by emphasizing the future value that can come from good products, management and concept. "You can't start with what happened yesterday," Rea explains.

How does that mixed metaphor go? Something like: If Graham were alive today, he'd be spinning in his grave. ■

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In growth we trust

If you don't want your heirs squabbling, think about redoing your estate plan to take advantage of a new beast called the unitrust.

By Carrie Coolidge

IT'S A SHAME: Grandma sets up a long-term trust to benefit several generations of a family. Years later the trust causes bad feelings and perennial conflict among family members. What turns a donor's generosity into strife? When a trust creates two kinds of beneficiaries—current and future—the two are inevitably in competition. The more money given to current heirs (often a donor's spouse or children), the less left over for future heirs (often the children or grandchildren).

The conflict is especially sharp with a traditional "income rule" trust, a popular format that allocates investment income (say, from bonds) to current heirs and reserves principal for future heirs. Then, no matter whether a trustee tilts portfolio investments toward growth or toward income, somebody's unhappy. But there is a way around this kind of mess: a new arrangement called a total return unitrust.

It's high time that the concept of total return came to the estate planning business. Much of this country's trust law is based on some creaky, almost feudal, notions about the distinction between principal and income. In ancient times the distinction was clear: The manor house and the farmland around it constituted principal, and the right to live in the house or to collect the farm rents was income. So long as the present beneficiary of such an estate maintains the property, there is no conflict with a later beneficiary.

Try to apply these notions to a world of stocks, bonds, derivatives and the threat of inflation, and you get unfortunate results. Trustees, who must balance the interests of all heirs, often favor conservative, dividend-paying stocks, bonds and Treasury notes. Not only does such a portfolio have little growth potential; because investment income is not reinvested, the portfolio's real value will likely shrink with inflation. That's not what Grandma had in mind.

If you were managing your own money, though, you presumably would be wise enough to aim for total return (income plus capital gain), not "income." The new unitrust takes that sensible approach and applies it to the trust business.

Instead of paying out only investment income to current heirs, a total return unitrust pays a fixed percentage of its total value annually. The payout generally ranges between 3% and 5%. As always, any remaining principal in the trust goes to the future heirs—called "remaindermen" in trust lingo—at the end of the trust's ter

Some colleges have taken a to return approach to endowment ma agement for many years. In ea 1997, Robert Wolf, a Pittsbur attorney, and Bruce Guiot, a direc in the trust company of PNC Priv Bank, studied the use of total ret payouts for family trusts by back-te ing various investment scenari Later that year, they started offeri unitrusts to clients.

"Traditional trusts don't take ir account that the inflation-adjust long-term return from stocks is alm four times the return from bonds, t this does," says Stephan Leimberg, adjunct professor at the Villanova U versity School of Law and author the *New Book of Trusts*.

Let's compare. Say that back 1960, a donor put $1 million into income-rule trust, with half going an equity portfolio mirroring the S

500 index and half to intermediate-term government bonds. Such a mix is typical. The donor left the income to his children, and at their deaths, the remainder to his grandchildren.

By the end of 1997 the children would have received payouts totaling about $2.7 million, assuming typical trading costs and a 1% annual trustee fee. Although income payouts would have grown from $33,550 in 1960 to $99,600 in 1997, their spending power would have dropped by 46% after inflation. The trust's principal would have grown to $3 million—a 5% loss after inflation.

With a total return unitrust, results can be stunningly different. Because the trustee doesn't have to rely only on investment income for current payouts, the original money could have been invested, say, 80% in stocks and 20% in bonds. If the trust had been set to provide a 4% annual payout to the children, they would have received a total of $2.9 million by the end of 1997, assuming payouts were made up of investment income first and

The unitrust takes the sensible approach of applying the concept of total return to the trust business. The results can be stunning.

then, if necessary, proceeds from stock sales. The annual payouts would have fluctuated—decreasing in some years—but would have grown to $197,000 by 1997. A portion of the payouts (from stock sales) would have been taxed at favorable capital gains rates, boosting aftertax income.

And here's the kicker: The principal would have grown to slightly over $7 million.

If a donor wants to guarantee the current heir a certain level of income, a payout floor can be specified in trust documents: "The current beneficiary shall receive 4% of the trust's assets annually or $40,000, whichever is greater." The floor can be indexed to inflation. Market volatility can be countered by basing payouts, say, on a three-year rolling average of portfolio value.

The total return unitrust is becoming widely available, although more than a few trust officers will still say "Huh?" if you ask about it. Information is available at Leimberg's Web site, www.leimberg.com. Families in which generations are already at odds over trust investments should take note: New York and Pennsylvania—the home bases of many long-term trusts—may soon allow existing trusts to convert to unitrusts. If that happens, other states will probably do the same.

One more thing to think about. While it is indisputable that stocks have beaten bonds in total return over the past century, it is far from certain that they will continue to do so over, say, the next 20 years. While you don't want your heirs to be locked into a Treasury note portfolio, neither do you want them to think that equities are certain to beat fixed income. The fickle market can crush a stock portfolio—if she's still around, just ask Great Grandma.

Leading indicator

Don't just look at net income. Look at a company's business operations.

By Thomas Condon

DAVE BLACK

FOOD LION, the grocery chain based in Salisbury, N.C., turned in terrible results in 1997—if you go by the usual bottom line measure. Net income was $179 million, off from $206 million the year before. But it wasn't doing a bad job at the checkout counter. Operating income, defined as earnings before depreciation, interest, taxes and nonrecurring items, was up from $612 million to $704 million. What hurt the company in 1997 was a nonrecurring charge for store closings.

Investors who didn't like Food Lion's earnings prospects dumped the stock and it bottomed in April 1997 at $6.50. But those who focus on operating results would have hung in there. The stock is up 50% since.

There's nothing wrong with looking at earnings per share; that figure explains a lot of what happens to a stock. But you ought to look at operating income, too, which gives a fairer measure of how successful a company is at its basic business. Insulated as it is from one-time gains and losses and from financing costs, it is sometimes a precursor of improvement or deterioration on the bottom line. Roughly speaking, operating income is equal to sales minus the cost of goods sold and minus marketing and other overhead costs.

Explains John Rogers, chief stock picker for Ariel Mutual Funds: "Wall Street is obsessed with quarterly earnings-per-share reports. But operating income provides a much clearer view of a company's growth potential."

Our search for turnaround possibilities started with a Ford Investor Services database of income figures on 4,000 companies. We narrowed the list to companies with gains in operating income over the past 12 months, accompanied by declines in net income. The idea: EPS-conscious investors may be spurning these companies at a time when they are doing a better job of beating the competition or pleasing their customers.

We eliminated companies with sales growth below 12% over the past year. This screened out those in which cost reductions were the principal cause of rising operating income. We also dropped small stocks (mark values below $500 million).

Warnaco Group, an appar company known for its Ol lingerie, Calvin Klein jea and Ralph Lauren Cha lines, looks pretty chea Look at it not as if you we buying a share of stock but if you were buying an enti business. To acquire the ope ation, you'd buy all the sto ($1.4 billion at today's pric and assume the debt (anoth $627 million). The total pri tag Wall Street puts on t enterprise: $2 billion. For th hypothetical outlay you wou acquire a business with ope ating income last year of $3 million. That gives you a rat of enterprise value to opera ing income of only 6, not b for a company with such stron brand names.

Faye Landes of Thomas Weis Partners rates Warnaco a buy. A the operating strength should so show up on the bottom line. Land expects to see $2.65 in net incon per share this year. The stock trad at nine times that sum. ■

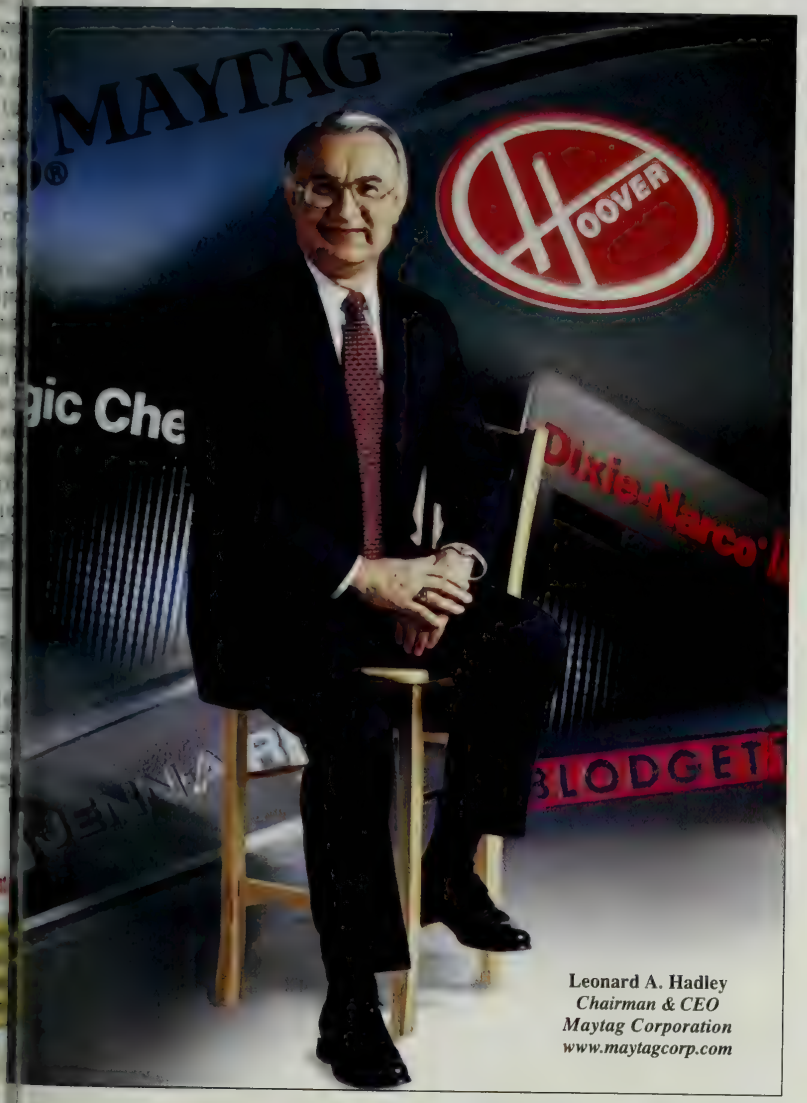
The good news higher up on the income statement

Company	Operating income growth	Net income growth	Operating income ($mil)	Price	Enterprise value* ($mil)	Enterprise value/ operating income
Fairfield Communities	107%	0%	$99	$8.63	$513	5
HCR Manor Care	94	–63	290	25.06	3,474	12
Integrated Health Services	155	–60	617	9.31	3,770	6
Magna International	15	–12	1,053	58.88	6,250	6
Outback Steakhouse	18	–1	204	39.56	1,982	2
Southdown	62	–19	321	52.31	2,172	7
Warnaco	98	–59	332	22.75	2,043	6

Figures are for the latest 12 months. *Represents market value of common stock, plus long-term debt.
Sources: Ford Investor Services; Value Line via FactSet Research System

These companies show gains in operating income. Net income should follow.

From Its Iowa Roots, Maytag Is Growing In New Dimensions.



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f the wine is poured more than
alfway up the glass, look out!

Smack the sommelier

y Clark Wolf

I am perfectly pleased that interest in good wine keeps rising with the Dow. And now that South America and Spain are uly represented, the wine price ndex even seems to be balancing ut a bit.

That said, I've got a few gripes bout the state of wine-quaffing in estaurants these days.

I don't go in for excessive exloration for the sake of competitive bscurity. An interesting little wine about as appealing to me as a lind date with a good personality. I on't want intellectual broadening; want the right amount of alcohol elivered in a delicious-tasting—and elicious-smelling—glass of grape. (After all, they say the experience is 80% olfactory.)

I also loathe the hard sell, the heavy pour and the blatant rip-off. These days most Americans can do beefy battle with any haughty waiter. But when it comes to wine, too many are intimidated into buying mediocre wines from off years at high prices. Don't be cowed. Be as loud about punk wine as you are about painful service.

The heavy pour is a nasty little waiter trick designed to get you through to the next bottle before the entrées land. Unless it's a by-the-glass pour, wine should fill between a quarter and a third of the glass. But in any event, it should never go above the widest point of the bowl.

As to the big rip—believe me, I make my living in this business, and I'm all for fair profit. I like a restaurant that hunts a bargain and finds me a magical mouthful. They don't have to pass the savings along.

Ditto for by-the-glass. I'll put up with plenty for the chance to limit my commitment and vary my sips. Besides, the house has to pay if the other four (or so) glasses in that now-opened crock don't sell.

What buckles my broccoli is the flat 300% markup, from the $18 plonk to big-bucks bubbles. At the top end the markup should be in dollars, not percentages. A solid bargain on a good Bordeaux that still heaves a hefty profit for the house is just good customer relations. The Russian Tea Room did it for years.

And then there's that nasty little beast I refer to as the Priceless Recommendation. This is where you're longing for something not listed on the wine menu. The waiter or vino maven pipes up with a tasty tipple that should just do the trick. You're with a date or a client so you just say, "yes." Later that same lifetime you discover you've spent the rent on a major Montrachet. Ouch.

But for sheer brazenness, the Oscar for up-selling goes to a waiter at a newly opened warm-weather resort who approached us as we sat down to breakfast early one morning during the holidays. We were thinking scrambled with toast and java. Could he bring us something to drink?, he inquired solicitously. Evian? Chardonnay? Puh-leeze. ■

Whine list

- Sommelier or no, if you're unsure of a wine, ask to speak to anyone on staff who's tasted it. If no one turns up, turn this bottle down.
- Feel free to tell your waiter how many courses you expect the bottle to last. Make him pour at your pace. Or ask to handle your own refill.
- If you're with a group, do magnums—especially of champagne. They often produce better-tasting wines and can be a bargain.
- Don't pay more than the cost of one good meal for a bottle. Don't let them sell you the whole château, unless you want it. –C.W.

Clark Wolf is a New York-based food and restaurant consultant.

SPORTS

If you're a high-powered executive who likes to sail, try Key West's Race Week. You will get a lesson in humility.

A billionaire is just another sailor

By Daniel Fisher

MISSISSIPPI LAWYER Richard Scruggs is not a man accustomed to losing. He flew A-6 jets for the U.S. Navy in the 1970s, won millions of dollars in asbestos lawsuits in the 1980s and helped wrestle a $246 billion settlement out of the tobacco industry in 1997.

But Scruggs just spent a week getting his brains beaten out at the wheel of his 40-foot racing sloop, *Gunsmoke*, in the waters around Key West, Fla. Scruggs finished 16th out of a fleet of 20 in the Farr 40 class (a 40-footer by a designer named Farr). "It was like practicing bleeding," says the shell-shocked Scruggs.

Oh, he'll be back, all right. The possibility of a drubbing at the hands of professional sailors like Gary Knapp, an ex-Olympian, and Gary Weisman, president of North Sails, is just what lured Scruggs to Key West—him and 2,000 other sailors in 274 boats. Every January Scruggs joins this collection of high-powered businessmen, helmsmen, camp followers, merrymakers and sailing junkies for a raucous series of pro-am ocean races. It's called Key West Race Week.

The week's action comprises races for 18 different classes of boats, from the big IMS (International Measurement System) racers that can be 50 feet or more to the J/24, an aging 24-foot daysailer. Some of the hottest competition is in the so-called one-design classes, like the Farr 40, where skippers agree to race identical boats.

That's one of the reasons Key West has gotten so popular. At the top levels of ocean racing, where Oracle Corp. Chairman Lawrence Ellison competes, owners often spend $3 million or more on boats that can become technologically obsolete within a year. That contest is one of C-notes, not seamanship. But Ellison's cash doesn't count as much in Key West. You can get a race-ready Farr 40 for a mere $310,000 *(see box, p. 174)*.

An even more important draw for people like Scruggs and onetime presidential candidate Pete du Pont, another regular, are the "owner-driver" rules in the one-design fleets, which prohibit professionals from taking the helm.

"I didn't want to get into a class [of boats] that was like race-car driving," says Scruggs. "Some fat cat hires pros to run everything and bellies up to the bar at the end of the day and brags about how well he did."

Pros aren't completely excluded from Key West. Many owners pay as much as $1,000 a day to have veterans such as three-time America's Cup racer John Bertrand sit beside them throughout the race, calling tactics. That's quite a bit different from hiring ringers

Lawyer Richard Scruggs talks with crewman Bruce McGill before the race. The 50-footer *Numbers*, below, prepares to round a mark.

PHOTOGRAPHS BY MARK M. LAWRENCE

to run the entire boat, but it gives amateurs the chance to learn from master mariners.

"You will never have the opportunity to go play tennis with John McEnroe, but classes like [the Farr 40] are making it possible to go sail against the John McEnroes of our sport," says Kenneth Read. He means himself. Read won six world championships in the J/24 class and runs the Newport, R.I. branch of North Sails.

Not everybody needs a pro to win. Du Pont won the One Design 35 class series at Key West this year with an all-amateur crew, defeating boats carrying John Bertrand and legendary sailmaker Lowell North.

"The class is very competitive—you sneeze and you [get passed by] three boats," du Pont said after claiming the trophy. "It's easier to run for President than race against these guys."

Racing isn't the only diversion on this tiny island devoted to pleasure. Mount Gay rum is a longtime sponsor of the festivities, and it distributes enough of its product so everyone there will always remember the name—or forget it completely. (Mount Gay is far stingier with its red canvas caps, which have acquired a strange, totemic value among the sailors.)

And not all the racers are du Ponts or multimillionaire trial lawyers. One of the happiest men under the white tent where the sailors gather to hand out trophies was a short, talkative pharmacy owner from Ontario named Jody H. Pepper. Pepper had put together a crew of 11 paunchy, middle-aged racers from Ontario, Texas and upstate New York.

They set forth in a creaky 40-foot cruising boat and bickered constantly. Still, the querulous druggist and his crew managed to win third place in their class. As he wandered through the tent swilling rum from his silver trophy and enduring thunderous backslaps, there was no happier salt in the Keys. ■

A fleet of Farr 40 sloops heads toward the windward mark at Key West Race Week. For a mere $310,000 (sails and electronics included), you can race against the world's best sailors.

One-design fever

ONE-DESIGN CLASSES are sweeping the yacht-racing world, no wonder. Even billionaires can tire of spending millions dollars on a winning hull design, only to see it become tec nologically obsolete before the end of the season.

"You don't want to have to design a new boat every time race," says Douglas DeVos, a senior vice president at Amw Corp. and son of the company's cofounder, Forbes 400 member Richard DeVos. To help stop the yardarms race, D and his brother Richard Jr., Amway's president, fostered th One Design 35 class. For $180,000, including sails and e tronics, you can get a sleek racing boat that has attracted some of the world's most competitive amateur sailors.

Racers who want to spend a little more can jump into th $310,000 Farr 40, designed by famed Bruce Farr of Annap Md. and built, like the One Design 35, by Carroll Marine of Bristol, R.I. The Farr 40 is made of fiberglass and epoxy re that is baked in an oven to give the hull incredible strength stiffness. At 11,000 pounds—half of which is in the keel— 40-footer weighs a fraction as much as cruising boats its s and can skim over the waves downwind at 17 knots.

The 60-foot mast is made of carbon fiber and weigh only 113 pounds. The boat also comes with $15,000 worth of electronics from Brookes & Gatehouse or Ockham Instruments, that measure everythin from wind speed to the boat's true velocity to th mark (sailboats rarely go in a straight line). All the are captured on a laptop computer so the skipper review his performance after the race.

Finally there's $35,000 to $47,000 worth c sails. Computer-designed and constructed out laminates of Kevlar fiber and Mylar film, tod racing foils are a far cry from the white can sails of yesteryear. The most up-to-date rac at Key West Race Week this year sported s covered with polybenzobisoxazole (PBO), a shimmering copper-colored material that supposedly repels sail-damaging ultravi rays but looks like it belongs on the ree shield of a space capsule.

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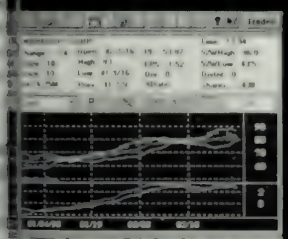

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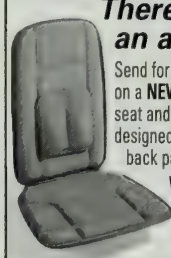

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Thoughts on the business of life

Isn't progress wonderful? Who'd have thought years ago what would happen to sneakers—the cheap footgear that was usually so smelly and soiled that mothers insisted "sneaks" be left outside the house. Not only have they become appallingly expensive, high-fashion, all-fashion footgear—but now the world's major company in the field, Adidas, is bringing out sneaker cologne, sneaker aftershave, sneaker moisturizer, sneaker shampoo, sneaker soap and sneaker deodorant. Here's a classic case of a smell by another name becoming a scent for bucks. Progress? –Malcolm Forbes

A woman's dress should be like a barbed-wire fence: serving its purpose without obstructing the view.
Sophia Loren

Satirists gain the applause of others through fear, not through love.
William Hazlitt

All news is an exaggeration of life.
Daniel Schorr

There is only one cure for gray hair. It was invented by a Frenchman. It is called the guillotine.
P.G. Wodehouse

The man who views the world at 50 the same as he did at 20 has wasted 30 years of his life.
Muhammad Ali

A divorce is like an amputation; you survive, but there's less of you.
Margaret Atwood

Success took me to her bosom like a maternal boa constrictor.
Noel Coward

A bad liver is to a Frenchman what a nervous breakdown is to an American. Everyone has had one and everyone wants to talk about it.
Art Buchwald

An Argentine is an Italian who speaks Spanish and thinks he is British.
Lydia Chavez

Commuters give the city its tidal restlessness; natives give it solidity and continuity; but the settlers give it passion.
E.B. White

A neighborhood is where, when you go out of it, you get beat up.
Murray Kempton

Isn't privacy about keeping taboos in their place?
Kate Millet

The righteous one has no sense of humor.
Bertolt Brecht

It is the public scandal that offends; to sin in secret is no sin at all.
Molière

The sexual freedom of today for most people is really only a convention, an obligation, a social duty, a social anxiety, a necessary feature of the consumer's way of life.
Pier Paolo Pasolini

You should never have your best trousers on when you turn out to fight for freedom and truth.
Henrik Ibsen

I hope you have not been leading a double life, pretending to be wicked, and being really good all the time. That would be hypocrisy.
Oscar Wilde

A Text . . .

The highway of the upright is to depart from evil: he that keepeth his way preserveth his soul.
–Proverbs 16:17

Sent in by Jane Smaellie, Kent, Wash. What's your favorite text? *Forbes Book of Quotations: Thoughts on the Business of Life* is given to senders of Bible texts used.

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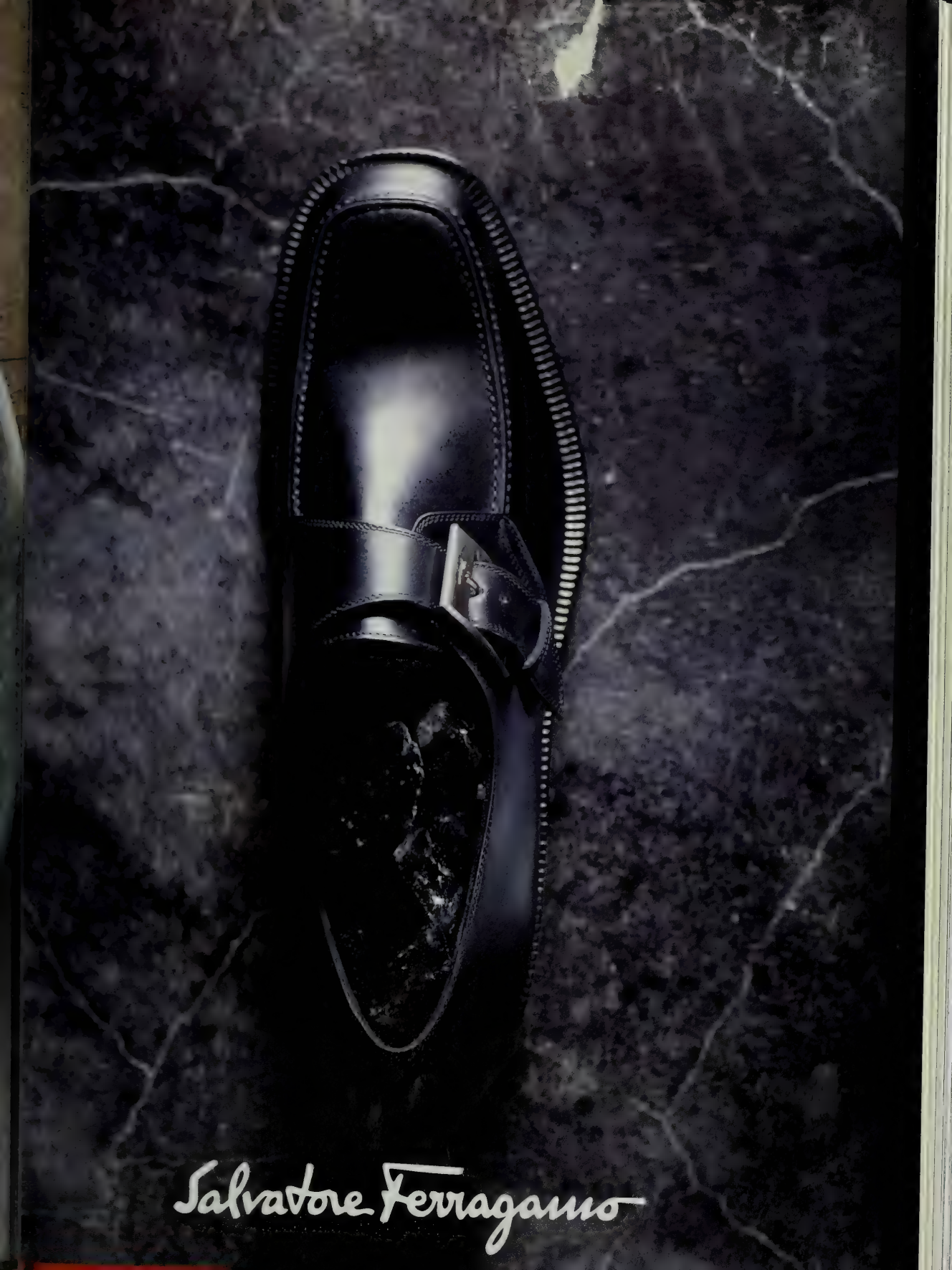
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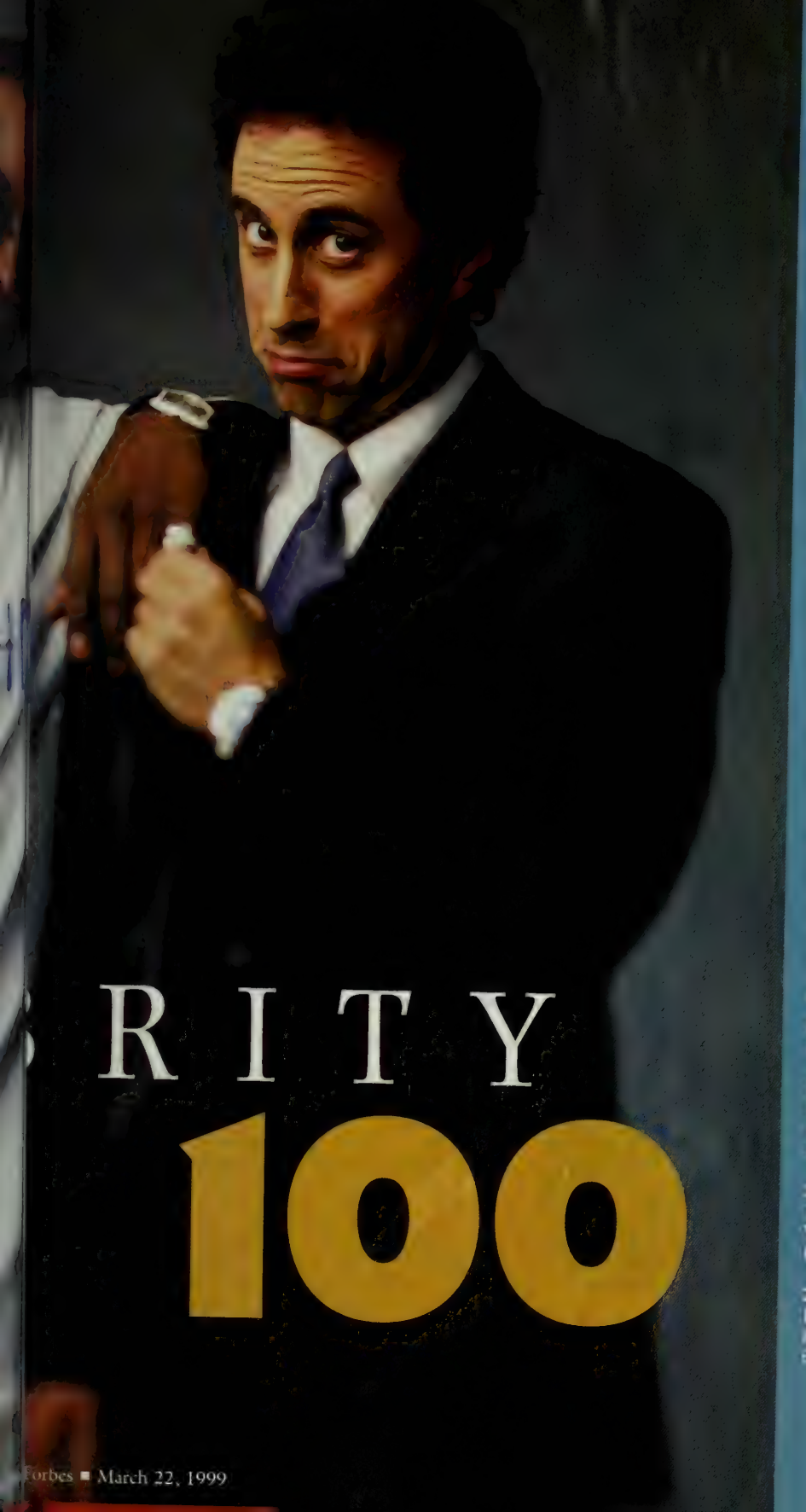

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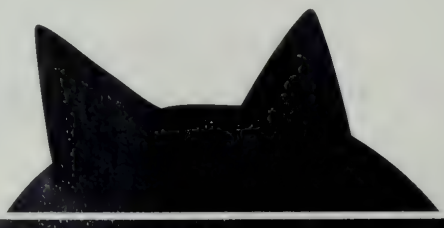

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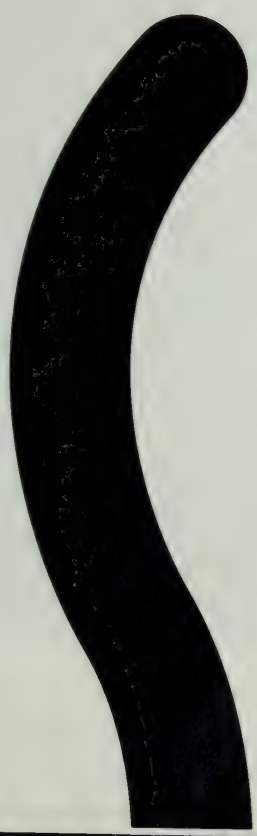

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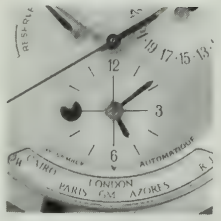

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Indiana, USA

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Thomas C. Doyle

Ben Franklin should have had an agent

In his *Citizens: A Chronicle of the French Revolution*, Simon Schama recounts how merchants of the 18th century exploited Benjamin Franklin's fame, slapping his face on inkwells, porcelain even dolls, without his permission. Franklin was tickled.

Jesse Ventura would not be tickled. The Minnesota wrestler-turned-governor wants to own the toy rights to the Ventura image—and all the other ways to commercialize his persona.

Benny Medina (Combs' manager), Lewis D'Vorkin, Sean (Puffy) Combs, Peter Newcomb, Alexandra Gregson, Jerry Seinfeld, Robert Mansfield (art director) and Ronda Kass.

Celebrity these days isn't just about being famous; it's about converting fame into brand equity. If you want to learn about brand equity, look at our Celebrities Power 100 survey.

"No one is better at brand extensions than Puffy Combs, the rap star," says Robert La Franco, author of the Combs profile on page 180. "Puffy's fame is a fraction o Madonna's, but his musical empire is already worth more." Ir "Star power, star brands" (page 188), Ben Pappas looks at brand equity building as practiced by such experienced hands as Martha Stewart and by such newcomers as Jennifer Love Hewitt. On page 203, you see a celebrity power ranking that represents a collective $3.4 billion in earning power.

In putting together this massive analysis of fame and the marketing of fame, Rob and Ben had a lot of help. Peter Spiegel and Leigh Gallagher unearthed earnings for all the athletes. Half a dozen reporters, assisted by intern Kate Williams, tracked down other celebrities; photo editor Alexandra Gregson fought her way through their entourages to get them photographed; deputy art director Ronda Kass designed the package; Leslie Kippen handled photo research; Naomi Prall and Joan Fitzsimons in our Information Center provided on-line research. Presiding over the whole project were the able pair of managers who orchestrate our Forbes 400 issue, executive editor Lewis D'Vorkin and senior editor Peter Newcomb.

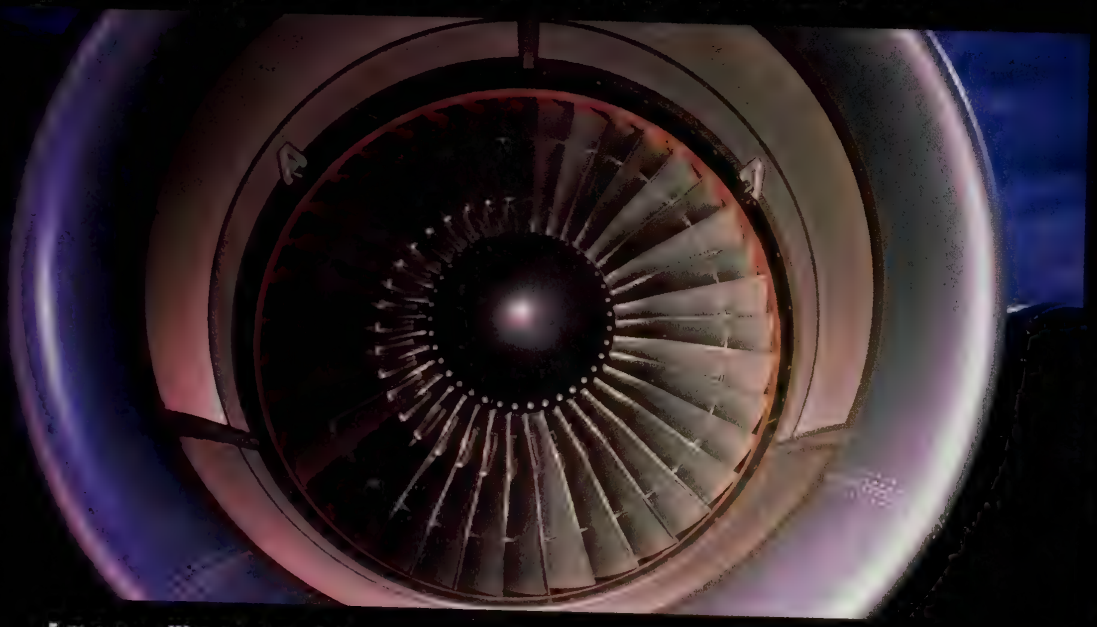
GEORGI LANGE

Ben Pappas gets a lift from Shaquille O'Neal

William Baldwin

Editor

TO SEE WHAT OUR NAME STANDS FOR, LOOK AT WHO STANDS BEHIND IT.



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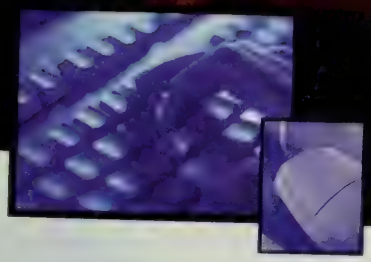

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Digital dupes?

DARRYL ESTRINE

Andersen's George Shaheen
Messiah or middleman?

Forget the hype about Andersen Consulting and its prospects for the future ("The messiahs of the network," *Mar. 8, p. 98*). The primary reason companies like Andersen succeed today is because too many chief executives don't know how to manage technology initiatives. That's why so many of them pay consultants three to four times the amount it would cost to do the job in-house. When the next generation of tech-savvy executives comes into power, they'll start giving these expensive middlemen their walking papers.
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Grounded

You assert that Boeing needs a new product to replace its "aging 747" and that production of the plane has dropped to one a month ("Let's make a deal," *Feb. 22, p. 52*). The modern 747-400 is one of the newest models in the fleet, and the only 747 produced since 1990. The plane has become the best-selling 747 of all time, and we are currently producing five 747-400s per month. Production is expected to fall sharply in 2000 as a result of the situation in Asia—not because of a fictitious allegation that the world's most economically efficient airplane is "no longer particularly efficient."
–Randy Harrison
Director, Media Relations
Boeing Commercial Airplanes Group
Seattle, Wash.

Manufacturing dissent

If articles like "Lost in cyberspace" *(Mar. 8, p. 124)* scare my competitors away from the Web, then please print more of them! Amazon.com and other "e-tailers" lose money because they are using the wrong model—they're trying to transfer the traditional distribution chain to a new medium totally unsuited for it. In on-line retailing the only sure winner is the manufacturer of the goods. My company uses the Internet exclusively as a medium to sell our software, and we have never lost a cent. The reason is simple: We are the manufacturer as well as the on-line reseller of our product.
–Paul Stannard
Chief Executive
SmartDraw Software
San Diego, Calif.

Newly emerging debtors

Your article on the trials and tribulations of the big money center banks and Third World deadbeats was fasci-

Back to the future?

Columnist David Dreman is another dinosaur using irrelevant statistics and looking to history to predict the demise of our markets ("Bubble psychology," *Mar. 8, p. 148*). Comparing today's market with any market in the past is complete lunacy—name one aspect of today's market that's analogous to the market of 1929. Is Dreman still using messenger boys instead of e-mail? I do see one bubble market today—the one for market commentators. Most are failures, because their advice fails to provide investment returns that beat the market. Why increase their value by giving them space to pontificate useless views?
–P. Edwin Thomas
Indianapolis, Ind.

IF YOU WANT TO SEE SOMETHING done, just tell some human beings it can't be done. Make it known that it's impossible to fly to the moon, or run a hundred metres in nine-point-nine seconds, or solve Fermat's Last Theorem. Remind the world that no one has ever hit sixty-two home runs in a season. Stuffed eighteen people into a Volkswagen Bug. Set half the world free. Or cloned a sheep. Dangle the undoable in front of the world. Then, consider it done.

HUMAN ACHIEVEMENT

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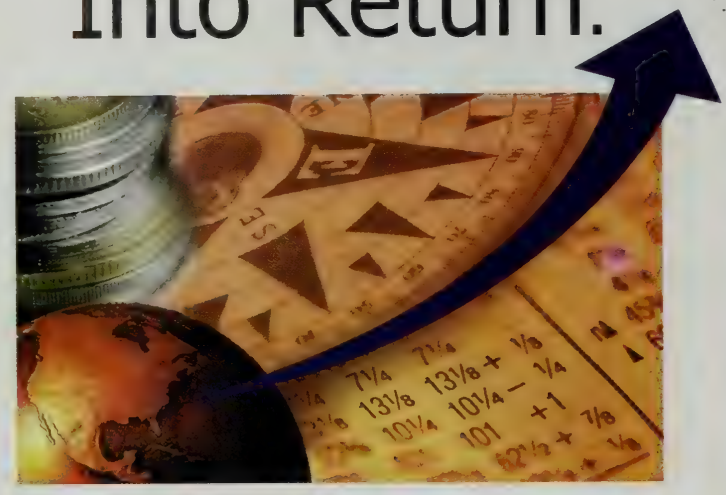

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nating ("Bond boomerang," *Feb. 22, p. 104*). When will the banks learn? They appear to be poised to enter the debt-restructuring process all over again with Russia. Here's a radical idea: Treat the sovereign nations like any other borrower. Look at their credit record and income statement and require collateral for a loan. If the Russians, Peruvians, or someone else does not pay up, then send in the repo man!
–Edmund L. Luzine Jr.
New York, N.Y.

Veep-huggers

ROBERT DEMICHIEL

Your report on the vice president ("Gore's crusaders," *Feb. 22, p. 74*) is the worst piece of hyped-up journalism I have ever seen. What this article tells me is that Gore has been highly focused, worked hard and done a good job. I've come to expect more objective business reporting than this from your publication.
–Don Kelley
The Sea Ranch, Calif.

I was offended by your one-sided article. My only wish is that I live to see a kind and compassionate man such as Al Gore become President. I will not be renewing my subscription to your once-fine magazine.
–Casey Marshall
Sherman Oaks, Calif.

Your article woke me up. Gore is an ecomaniac stealing from the till to build a war chest with which to fight American business and the nation's consumers. Keep us informed about the plot.
–Walt Buescher
Pigeon Forge, Tenn. ■

Letters should include the author's address and phone number.

In the tropical zone there are 600 million future office workers, and their air conditioned offices

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Nearly one-third of the world's population lives in the tropical zone — a belt that reaches 1,600 miles orth and south of the equator. In this region, cities, infrastructures, work forces, office buildings, transportation nd a whole new middle class will be growing much faster than in the mature markets.

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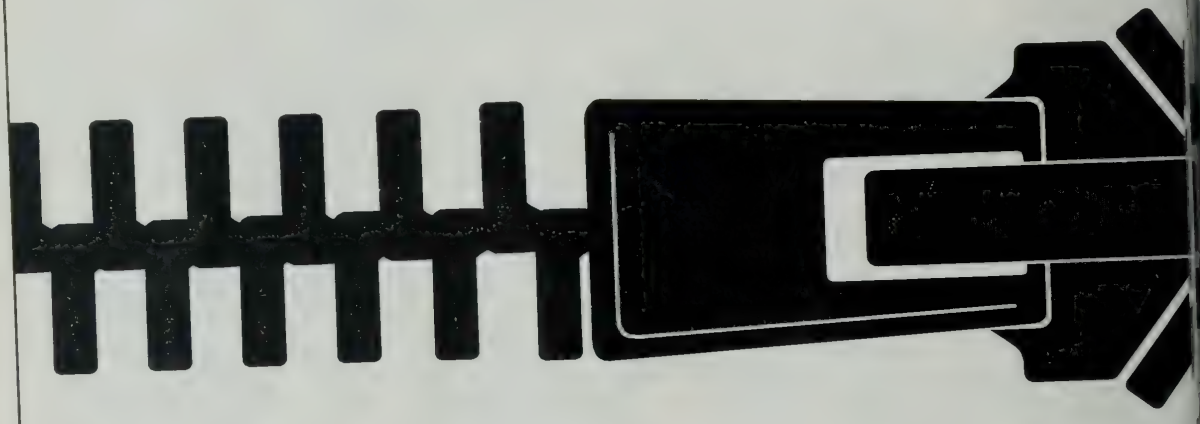

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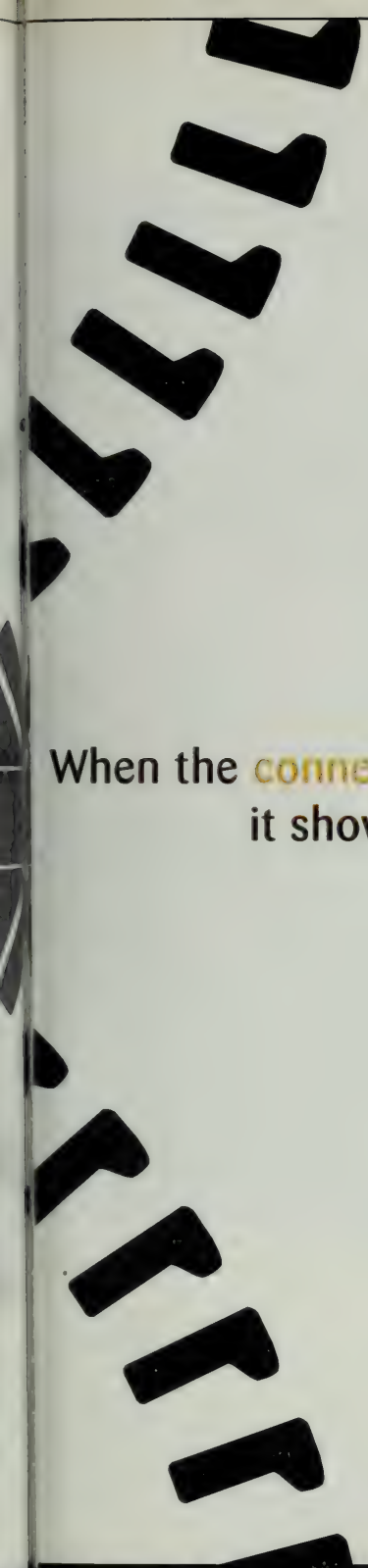

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Edited by Susan Adams

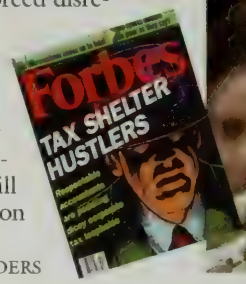
Stormy weather for tax shelters

HOT ON THE HEELS of our story exposing corporate tax shelters *(Dec. 14, 1998)* has come a flurry of efforts to curb the worst of them.

In February the Clinton Administration proposed 16 tax law changes, including stiffer penalties for shelter-users and excise taxes on promoters' fees. Treasury Secretary Robert Rubin told Congress that shelters "erode the corporate tax base and breed disrespect for the tax system."

House Ways & Means Chairman Bill Archer has scheduled March hearings, which will include scrutiny of the Administration's proposals. Archer is inviting additional suggestions for cracking down without impeding legitimate business deals. Meanwhile, Treasury is studying still more lines of attack and completing a white paper on corporate tax shelters.

–JANET NOVACK and LAURA SAUNDERS



Treasury Secretary Rubin: Gunning for abusive corporate tax shelters.

Keeping the faith

NARENDRA AND VINITA GUPTA were the golden couple when we wrote about them two years ago *(Nov. 18, 1996)*. We speculated the two high-tech entrepreneurs were on their way to The Forbes 400. But the Guptas have encountered an unfortunate and rocky road since.

In early 1997 Narendra, then 48, developed a rare colon disease, which then triggered a heart attack. Leaderless, his Integrated Systems Inc., which makes embedded software, saw its stock dive from $25 in April 1998 to $6 in October. At the same time, Vinita's company, high-speed networking equipment maker Digital Link Corp., lost money as it delayed shipments of new products and struggled to find a chief executive.

Ever optimistic, the Guptas say they're counting their blessings. Narendra underwent angioplasty, lost 30 pounds and overcame his colon illness. Integrated Systems has a new president and chief executive and its stock price has rebounded to a recent $15. Vinita has turned her focus back to Digital Link and managed to restore the company to profitability at the end of 1998. Says Narendra from his home office, where he's overseeing his investments in two high-tech startups: "I feel as if I've been given a second chance."

–ANN MARSH

Nosedive

A YEAR AND A HALF AGO, when the U.S. government effectively blocked an alliance between American Airlines and British Airways, we predicted BA was facing heavy turbulence *(Sept. 8, 1997)*. It came. Lacking a direct North American feed of passengers, BA saw pretax earnings fall in the last nine months of 1998, to $515 million from $836 million the year before. In its December quarter, BA suffered its first quarterly net loss in five years—$123 million.

Now, BA is pushing a less comprehensive deal with American; the two would share flights and sell tickets on each other's planes. But bureaucrats on both sides of the Atlantic are dragging their feet, even though such deals are normally rubber-stamped. The obstacle: the U.S. insists on greater access for Continental, Delta and TWA, including at London's lucrative Heathrow. The Brits are refusing to yield a single slot. There may be more red ink at BA.

–HOWARD BANKS

FLASHBACKS

Song and dance

75 YEARS AGO IN FORBES
JANUARY 19, 1924

B.C. Forbes ran a $1,000 contest for the best response to "What is your bank doing for you and your community?" Eddie Cantor won first prize. Here's his story:

Singer Eddie Cantor

I was playing [around 1918] in Ziegfeld's Midnight Frolic atop the New Amsterdam Theatre at a weekly salary of $400. After several years of hard work I had succeeded in accumulating a chestful of pretty (so-called) investment certificates, which cost me in the neighborhood of $11,000 and in the last analysis were not worth more than the paper they were printed on. A short time after the president of Manufacturers Trust Co. [of New York, whom I had met, told me how easy it would be to accumulate sufficient money to be independent when I could no longer use my professional talents. He advised me to purchase $10,000 of Victory notes. Before a year rolled by, I found myself the owner of notes which were really worth $10,000.

Eddie Cantor died in 1964.

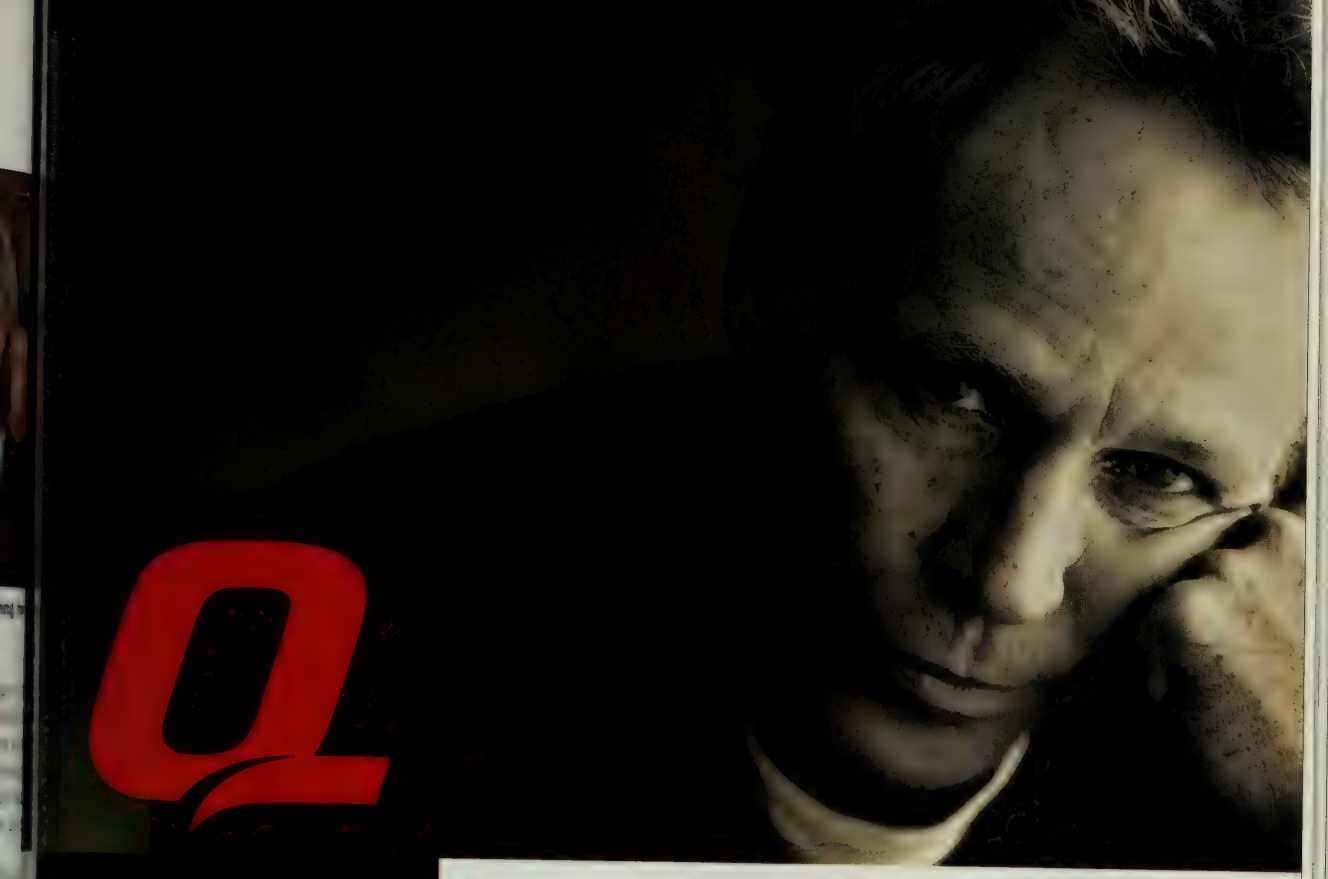
Jackpot

12 YEARS AGO IN FORBES
APRIL 6, 1987

Barry Diller, chairman of Twentieth Century Fox, has one of the most lucrative contracts in American industry. Along with his base salary of $3 million a year, he gets 5% of all profits from the studio, the station and the network (plus a signing bonus last year of News Corp. securities now worth $66 million). His income will mushroom if, as he and boss Rupert Murdoch predict, Fox Broadcasting moves into profit in a few years.

Diller left Fox in 1992, taking with him $65 million, representing his share of the profits, and 4 million shares of News Corp. In Diller's latest deal—a proposed merger between his USA Networks and Lycos—he will control 61% of a $20 billion company.

–Edited by Dolores Lataniotis



Do computer makers believe that every time they come out with new product, I get a new budget?

Reality check: If you've invested in technologies like OpenVMS or NonStop Himalaya, you count on them to run your business—and they do it well. But with IT rapidly evolving, there are opportunities you'd like to seize. So Compaq is extending these environments to incorporate elements like Web-enabled capabilities, Windows NT® interoperability and 64-bit performance. Which means your IT infrastructure can remain firmly in place while new applications like e-commerce come on-line. We offer not just systems but software, services and solutions to make it all work together. So your past investments will continue reaping future returns. To learn more, call 1-800-AT-COMPAQ. Or visit www.compaq.com/investment.

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Edited by Katarzyna Moreno

The great communicators

By Josephine Lee

Giving a speech can be daunting, even frightening, for many executives. Herewith, some advice from fellow speakers, a list of speaking coaches and tips from the experts.

"To me, giving speeches is like hosting parties: Your role is to make everybody comfortable."

Jim McCann, president, 1-800-Flowers

Michael Muehlbayer

Chief Financial Officer
DaimlerChrysler Financial Services
When I came to the U.S. three months ago I made presentations in a German way—I just gave facts and numbers. But how would Americans ever accept me if I was so dry? So I started my last presentation to a group of executives by telling a little story about myself. They liked it. It was as if I wasn't German to them anymore.

James (Jim) McCann

President
1-800-Flowers
If you're at a party, the best way to overcome shyness is by acting like a host. You forget that you're uncomfortable because you're busy making sure that everybody else is doing fine. To me, giving speeches is like hosting parties: Your role is to make everybody in the room feel comfortable.

Carol Bartz

Chairman/Chief Executive
Autodesk, Inc.
Many executives believe that good debating skills are the most important for learning how to make a point, but there are other ways, too. I think studying poetry gave me more of an edge. By reciting poetry you learn how to play with the words.

Virginia Gambale

Chief Information Officer
BT Alex. Brown
I used to be a classical pianist, and during my first recital I had a memory lapse. The music was in my finger memory but not in my mind. I couldn't visualize the notes, and I went blank. That taught me that knowing your stuff is critical.

Tips from the pros:

• Prone to panic? Come armed with some effective relaxation techniques: meditating before the speech; deep-breathing exercises; or 10mg of Inderal, a beta-blocker that fends off hyperventilation.

• Unless you're Jerry Seinfeld, don't tell jokes. An anecdote from personal experience is better.

• Don't read your speech; it's monotonous and it exposes you to disaster if you are missing a page or a Teleprompter breaks. Instead, outline what you want to say and jot down key words or phrases. Speak to the audience conversationally.

• Don't scan the room. The sheer size of the audience will overload your senses—you'll feel overwhelmed. Keep your eye focused on one person or thing at a time and move across the room that way.

• Watch your movements. Don't prowl the room like a hungry tiger, sway from side to side or stand rigidly. Take a few deliberate steps to release some nervous energy if you have to.

• Don't grin, pout or frown. Use "likeable" and "trustworthy" expressions. Pretend you're talking to a baby or your golden retriever.

• Avoid pompous words that you wouldn't use in cocktail party conversation—like "paradigm," "pragmatic," "interface" and "exacerbate."

• Use positive statements. President Ronald Reagan prompted his speechwriters to use "I'll always remember" instead of "I'll never forget."

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George Shaheen

Managing Partner/
Chief Executive
Andersen Consulting
I got up there once and I was in denial about moving into a phase of my life when I needed reading glasses. So I didn't wear them. I couldn't see my notes, and I had to wing it more than I'm glad to do. It wasn't much fun.

Richard Teerlink

Former Chief Executive
Harley-Davidson, Inc.
Never change your routine in order to come off well. I don't speak well from prepared notes, so usually I just use slides. But for one particularly important meeting, I also wrote up notes and read them. But I forgot to change the slides. I wasn't myself, and it threw me off. ■

Speech shamans

When answering a hostile question, introduce another topic, one the listener is passionate about.

Dan Ammerman, The Ammerman Experience

Dan S. Ammerman
The Ammerman Experience
Stafford, Tex.
Preps executives for interviews and speeches about layoffs, product recalls and other crises; uses simulated environments with hostile audiences: Use "bridging" technique: when answering a hostile question, introduce another topic, preferably something the listener is passionate about.
Rates: $4,950 to $5,940 a day.
Clients: Representative Robert Livingston (R-La.); John Bookout, former chief executive, Shell Oil Co.

Kevin Daley
Communispond
New York City
Teaches gestures and postures projecting confidence: Don't prowl the room like a tiger. Take one or two deliberate steps and assume stance. Limit upper-body movements.
Rates: $5,000 per day.
Clients: Jon Harrington, managing partner, Andersen Consulting; Warren Anderson, former chief executive, Union Carbide Corp.

Sandy G. Linver
Speakeasy Inc.
Atlanta
Trains speakers to move people to action: First make sure that you are ready to bear the consequences of what you are going to announce.
Rates: $5,000 per day.
Clients: Douglas Ivester, chief executive, Coca-Cola; Ralph Cooper, chief executive, Minute-Maid.

Arch Lustberg
Arch Lustberg Communications, Inc.
Washington, D.C.
Teaches likability: When making a speech, imagine that you are talking to a baby or a pet.
Rates: $4,500 for a half-day session.
Clients: Jay Van Andel, cofounder, Amway Corp.; Bjorn Ahlstrom, former chief executive, Volvo Group, North America.

Merrie Spaeth
Spaeth Communications
Dallas
Theme—word usage: Avoid "bad" words. Don't say "We didn't do anything illegal, immoral or unethical;" instead, say: "We are devoted to the spirit of the Olympics."
Rates: $7,500 to $15,000 a day.
Clients: Kenneth Starr, independent counsel; Theodore Weise, chief executive, Federal Express; Philip Pfeffer, chief executive, Borders Group, Inc.

Lilyan Wilder
Lilyan Wilder, Inc.
New York City
Specialty: "humanizing" chief executives. Uncorked the emotional side of John Sculley, then-CEO of PepsiCo, by asking him to read James Agee's *A Death in the Family.*
Rates: $2,500 to $3,000 for a six-hour session.
Clients: Katharine Graham; Oprah Winfrey; Ivan Seidenberg, chief executive, Bell Atlantic.

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"With all thy getting get understanding"

Fact and Comment

By Steve Forbes, *Editor-in-Chief*

CONTAINING CHINA

THE CLINTON/GORE ADMINISTRATION has denied approval to an American company to sell a mobile communications satellite to an outfit with close ties to the Chinese military. What a contrast to the White House's earlier promiscuous, if not corrupt, licensing of highly sophisticated technology that has aided in Beijing's arms buildup.

China has worked assiduously to get advanced knowledge from U.S. companies. A report put together by a select congressional committee chaired by Representative Chris Cox (R–Calif.), the contents of which are still largely secret, has concluded that our national security has been harmed by those transfers. China has also acquired some of our most sensitive military secrets, including designs for nuclear weapons. Fortunately, Congress returned the satellite licensing authority to the State Department from the Commerce Department.

China's goal is to shove U.S. power out of Asia. China is already deploying hundreds of missiles against Taiwan. Genuine peace, though, requires a strong U.S. presence in the region. The U.S. should make it clear that it will not tolerate a military assault against Taiwan.

CHINA FEATURES SYGMA

China's growing missile program: America is the ultimate target.

We urgently need to develop local missile defense systems for U.S. troops and allied countries in Asia, and we should upgrade the Navy's Aegis technology to give us a mobile missile defense capability. Japan and South Korea are anxious about their growing vulnerability to ballistic missile attack.

Effective military measures and the credible conveyance of U.S. resolve toward Beijing will avoid dangerous confrontations that are not that far down the road.

DOLLAR DIPLOMACY

ARGENTINE PRESIDENT CARLOS SAUL MENEM is considering replacing the peso with the dollar. In effect, he is asking why his country should be vulnerable to the destructive currency crises sweeping the world, including neighboring Brazil, and, why, instead of trying to keep the peso tied to the dollar, he shouldn't make life simpler by using the dollar itself.

Argentina *should* make the move. In fact, so should Mexico, Canada and the rest of the Americas.

The benefits to Argentina would be immediate. Interest rates would lower significantly, and the ensuing stability would attract more capital and stimulate more local entrepreneurial risk-taking. People could focus on doing business rather than on defending themselves against a volatile currency.

Buenos Aires has the means to dollarize its economy. It already has a currency board that issues pesos only when they are backed by dollars. The country possesses more than enough greenbacks to buy in the entire peso monetary base. Skeptics say Argentina shouldn't do this unless it negotiates a treaty with the U.S. Then Argentine banks could borrow from the Federal Reserve, just as American banks can, to prevent liquidity crunches or panics. No such agreement is needed. Many Argentine banks are branches of American or other foreign banks; the parent becomes, in effect, the lender of last resort. Moreover, the government already has the resources to provide emergency liquidity, and it could certainly negotiate lines of credit with private banks if it felt more backup was necessary.

REUTERS

The U.S. should urge Mexico and Canada to begin negotiations for a North American monetary union. All would prosper from such an arrangement. Mexico's economy has been battered by currency weakness since the mid-1990s. The number of Mexicans living below the poverty level has doubled over the past five years, pressing desperate people to cross our borders illegally. Canada would benefit from the stability provided by such a union instead of having to cope with a seemingly ever-depreciating currency.

This type of arrangement would

have a moral basis. If you earn or save a dollar, the value of that dollar should not be lessened because of political mistakes. Decades ago, John Maynard Keynes succinctly summarized how destabilizing inflation can be: "There is no subtler, no surer means of overturning the existing basis of Society than to debauch the currency. The process engages all the hidden forces of economic law on the side of destruction, and does it in a manner which not one man in a million is able to diagnose."

Dollarizing the Americas would place a special obligation on us to keep the buck steady in value. Bluntly put, the Federal Reserve today uses no reliable gauge to determir if it is providing the markets with a sufficient, noninfl tionary or nondeflationary supply of money. It is driving car without a speedometer. The price of gold is as good gauge as any. Experience shows that if the dollar price the yellow metal goes down, the Fed is being too tight, an if the price surges, the Fed is being too loose. Today's doll price of gold is 18% below what it was nearly two years ag The Fed is inadvertently putting its thumb on the world windpipe. This is one reason we are experiencing glob currency turbulence and why commodity prices are so lo

CLEARING A MILLENNIUM MINEFIELD

A BIPARTISAN GROUP of House members headed by Tom Davis (R–Va.) has proposed a much-needed bill to stop a potential avalanche of destructive, frivolous lawsuits concerning the Y2K computer problem. (In January, unless corrected, computers will think that "00" stands for 1900, not 2000.) If this bill were to pass, companies could focus resources on fixing the problem instead of on fending off hordes of trial lawyers.

Some of the bill's provisions:

■ Plaintiffs would have to serve a notice of intent to sue; defendants would then have 30 days to respond to the problem, with another 60 days to fix it. Without serving notice, no suit could be filed.

■ No punitive damages, unless there were clear and convincing evidence that a defendant *intentionally* caused injury. Damages (except fo claims for personal injury) would be capped at $250,000

■ Lawyers' fees would be capped at $1,000 an hou (some litigators involved in the tobacco suits will receiv the equivalent of more than $500,00 an hour).

■ No deep pockets. A defendant woul be liable only for his proportion of th responsibility.

AP/WIDE WORLD

Representative Davis: Defusing a potential litigation explosion.

The Administration is opposing th bill; this is no surprise, given that tria lawyers are the Democratic Party biggest source of funds. But four yea ago Congress overcame White Hous opposition and enacted reforms haltin baseless lawsuits concerning stocks. should gird itself to do battle again.

DEEP-SIX LOUSY LAW

CONGRESS SHOULD LET the special prosecutor law lapse when it comes up for renewal in June. For all intents and purposes, an independent counsel is accountable to no one and is bound by no budget or time constraints. Our democracy is dependent on checks and balances and the separation of powers. Every office and officer should be answerable to some other body.

Expectations being what they are, a special prosecutor will usually feel the need to show something—such as an indictment—to justify the time and money his office spends. And because the prosecutor has unlimited resources, defendants must spend immense sums of money to defend themselves. Even if an individual escapes one set of charges, prosecutors often bring another round.

Some political figures believe the law ought to be mended, not ended. After all, look at the Clinton Administration's long record of abuse. How else could a lawless President b brought to account? But the tools already exist to get at th truth. The Watergate and Teapot Dome investigations pro ceeded without the benefit of such a law. If the Justice De partment is compromised (and the Clinton one is), Congre should step into the breach. In fact, the independent cour sel law let Congress (and the media) off the hook with th Administration—someone else was doing the investigating Moreover, the current law can't compel others to do the duty. Janet Reno shamelessly refused to allow investigation of alleged wrongdoing by the Vice President and others.

Contrary to what the White House and its media collab orators say, Kenneth Starr did not abuse his office. He wa hampered by the protracted obstruction and stonewalling the President and his team. But Starr's sense of honor an duty do not overcome this law's fundamental shortcoming

RESTAURANTS—GO, CONSIDER, STOP

Here is the distilled wisdom of brothers Bob, Kip and Tim, and other FORBES *eatery experts Tom Jones and Patrick Cooke.*

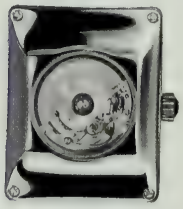
● **Café des Artistes**—1 West 67th St. (Tel.: 877-3500). One of the most attractive spaces in town, and the food and service are up to the ambience. Tasty samplings: endive salad with grapes, walnuts and crumbled Stilton; pork-loin schnitzel with cucumber salad; rack of lamb with basil crust. Desserts are delicious. Terrific.

Chola—232 East 58th St. (Tel.: 688-4619). Pleasant atmospherics, but the food is cliché. The search for a wonderful and special Indian restaurant goes on.

● **Butterfield 81**—170 East 81st St. (Tel.: 288-2700 Smaller, cozier reincarnation of the old "21." Sugges tions: bacon-wrapped pork tenderloin with white bea ravioli, and braised lamb shank with polenta.

● **La Soirée d'Asie**—156 East 64th St. (Tel.: 421-7899 Island of tranquillity offering sublime Vietnamese fare, wit impeccable service. Try the Saigon beef rolls with fresh herb and ground peanuts wrapped in a rice cake; steamed fis with ginger; crêpe filled with sautéed fresh vegetables. ■

Oris Classic
Automatic Mechanical



The rectangular watch from the Oris Classic collection adapts itself perfectly to the wrist. Seeing the inner life of this self-winding mechanical watch through the skeleton back confirms the outstanding combination of classic form and advanced Swiss technology.

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"Every year, 3.5 million people are injured at work. That's where my job starts, on the other end of the phone, making sure patients find the most appropriate doctors, encouraging them to move farther along in their therapy. I introduce people to the latest treatment options, or help them find alternate jobs they can perform while in recovery. And sometimes, I'm just the world's toughest cheerleader. In my 27 years of hospital work, I saw people who had lost all hope. So, I know what it's like to be injured and need the help of another person. That's why I'll be there, making all the calls I can, to coordinate care for these people and get their lives back on track."

LIBERTY MUTUAL.

Other Comments

Suits of the Century

IT'S BARELY 1999, and already more than 50 lawsuits involving Y2K claims have begun working through U.S. courts. Here's a sampling:

■ This 1997 suit is believed to be the first Year 2000 lawsuit: Produce Palace, a grocery store, sued a cash-register manufacturer and distributor for manufacturing and selling a computerized check-out system in 1995 that failed, the store said, whenever a customer used a credit card with an expiration date of 2000 or later. Produce Palace was awarded $260,000.

■ A lawsuit was filed on behalf of people who bought an accounting software program that would not recognize the date "01" as the year 2001. The case was settled, with owners of the software to receive fixes. Attorney fees and costs to defendants totaled $565,000.

–DENA BUNIS, *Orange County Register*

Dollars and Sense

TO MAKE ARGENTINA'S currency unification with the dollar perfect, Argentine President Carlos Saul Menem has suggested replacing the peso with the dollar. Argentina would need about $15 billion to replace the peso monetary base with dollars. This would be feasible because the central bank's liquid reserves are about $24 billion.

The second possibility, a limited treaty with the U.S. that would allow Argentine banks access to the Federal Reserve's discount window, would be far from optimal. It is undesirable to have a central bank as a lender of last resort. All the most expensive rescues of banking systems have occurred under central banking. Argentina, in fact, holds the record for the most expensive bank rescue in proportion to the size of its economy; the banking crisis of 1980-82 cost 55% of GDP.

–STEVE H. HANKE,
Wall Street Journal

***

WHY SHOULD COUNTRIES link the fate of their monetary affairs to the dollar? Even if Federal Reserve Chairman Alan Greenspan doesn't know exactly what he is doing, at least he is steering monetary policy independent of domestic U.S. policies. Even if Greenspan makes poor decisions, his mistakes can never lead to sustained inflation, as do overtly politically motivated monetary policy decisions in other countries. If the U.S. were to declare its monetary policy de-politicized forever and institutionalize its firm stand for a monetary standard, the foundations of the much-talked-about global financial architecture would be set.

–REUVEN BRENNER,
American Spectator

Insecurity?

A REPORT completed last December by a select committee of the Congress chaired by Representative Chris Cox (R–Calif.) is said to be harshly critical of the Clinton Administration's la handling of the manner in which Beijing has strategically taken advan tage of access to technology market and military facilities to the detrimen of U.S. national security. No wonde the Administration has not been anx ious to make a "sanitized" versio publicly available! The truth must out

–Center for Security Policy,
Washington, D.C.

Three groups spend other people' money: children, thieves, politicians. All three need parental supervision.

–REPRESENTATIVE DICK ARMEY (R–Tex.), *Revolution: A Strategy for the Rebirth of Freedom*

A Fine Line

I COULD NEVER TELL where inspiratio begins and impulse leaves off. I suppos the answer is in the outcome. If you hunch proves a good one, you were inspired; if it proves bad, you are guilty of yielding to thoughtless impulse.

–BERYL MARKHAM,
West With the Night

Food Fight

APPETITE CAN JOIN forces with radicalism, and both sides can be the stronger and the prouder for the meeting. Or so a group originating in (where else?) Italy would have it.

Slow Food wants people to adopt endangered foods the way environmentalists adopt endangered animals—only this time the means o preservation will be vigorous consumption rather than rigorous protection. It has launched the Ark Project, publicizing foods "threatened by extinction" in an effort to persuade consumers to seek them out and restaurants to serve them regularly—the idea being that market demand will spur supply. Doing good by eating well: it's an irresistible combination.

–CORBY KUMMER,
Atlantic Monthly ■

Of course, the insurance company told him he wasn't covered for wolves."

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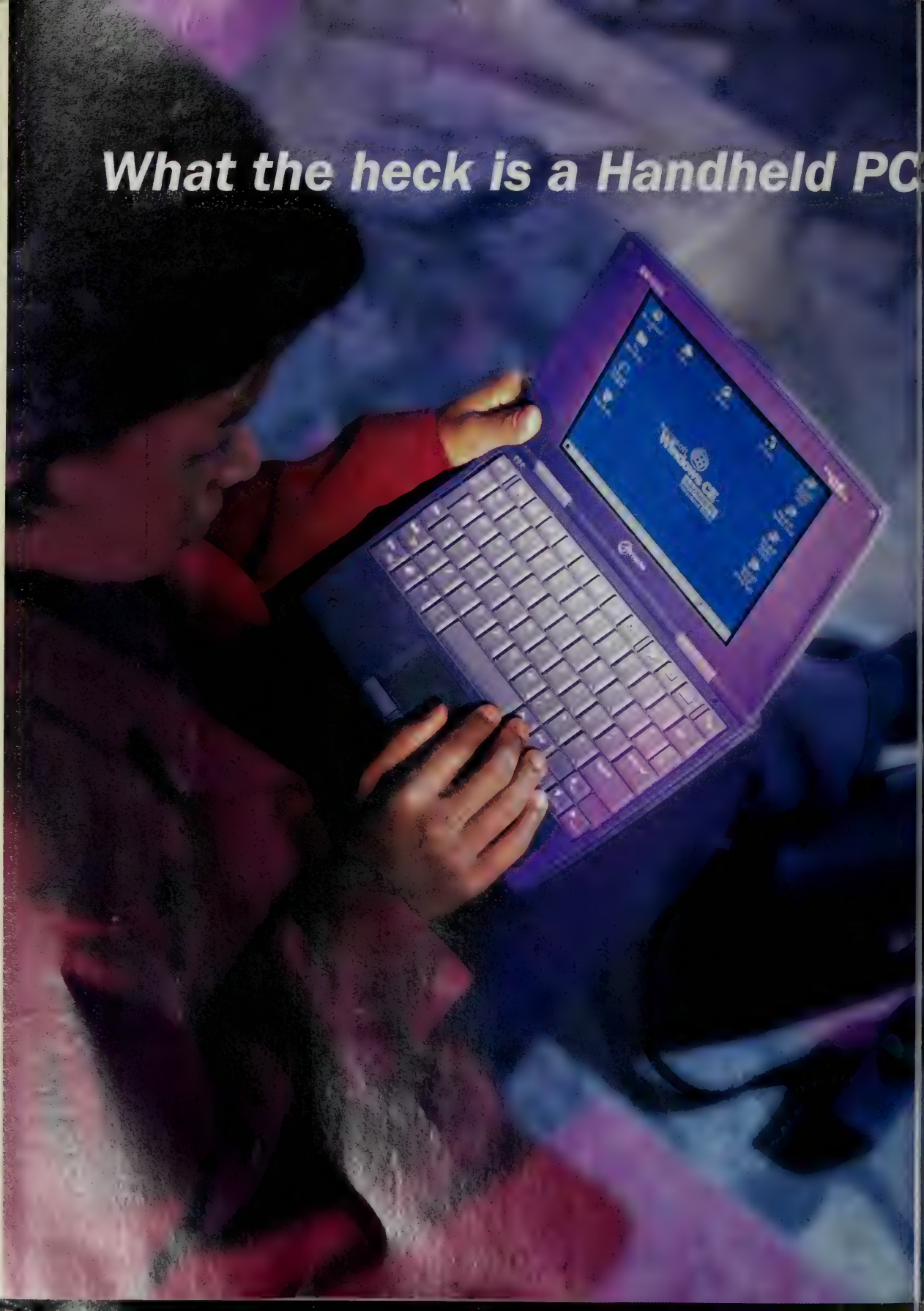

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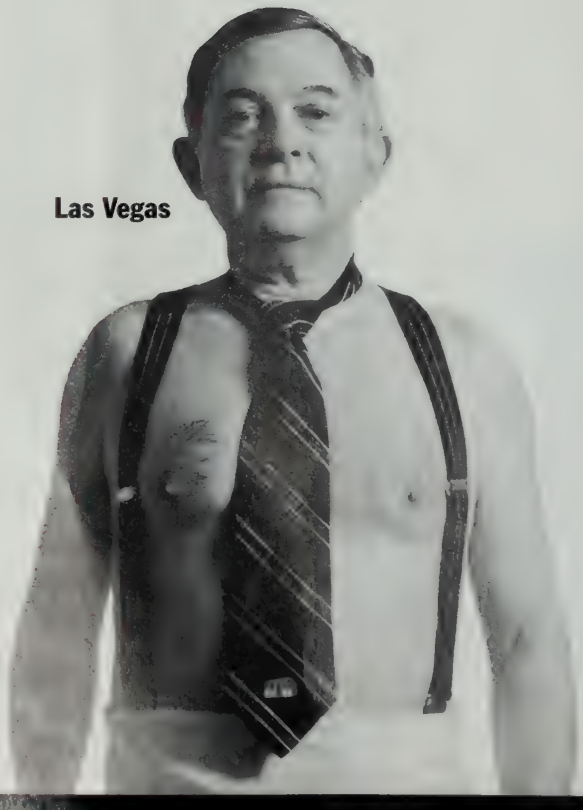

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— NY Ti

"The quintessential New York City steakho
— Gou

"...perhaps the best sirloin of my lif
— Chicago Trib

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Commentary

on events at home and abroad

By Caspar W. Weinberger, *Chairman*

THE DRAFT AND THE PRESIDENT

One of the achievements of which Ronald Reagan was proudest was the extraordinary turnaround in the morale of the Armed Forces. At the Senate confirmation hearings for my appointment as Secretary of Defense, I was asked many times if the Administration would favor reinstating the draft. Low morale had seriously reduced the number of voluntary enlistments, and many in the services were not willing to reenlist. We adamantly opposed reinstating the draft; it had rent the social fabric of the country during the Vietnam War.

But in a short time, strongly improved recruitment numbers and morale measurements proved that the all-volunteer military was working, and all talk of a draft ceased. By the mid-1980s we actually had waiting lists for recruitment in many depots, and 95% of those volunteering were high school graduates.

What caused this dramatic turnaround? The welcome change in attitude of the new Administration. President Reagan never failed to emphasize his strong support for the military or his enormous admiration for those who volunteered to serve. The Carter Administration failed to support the services' needs and seemed blind to the importance of the work the troops were doing. President Reagan and his defense budgets changed all that.

Now we seem to have come full circle. It has taken six years for Mr. Clinton to see the need for an increase in the defense budget—and to acknowledge that *possibly* the U.S. should have an effective missile defense. As a result, our military effectiveness is on a par with that of the 1970s. We can no longer carry out the basic mission that both parties have long accepted as a benchmark: the ability to fight and win two regional wars simultaneously. Indeed, when a Navy task force moved into the Persian Gulf in February 1998 (presumably to pressure Iraq, but we actually did nothing), our commanders in South Korea were warning the Pentagon that they were being stripped of forces necessary for the protection of South Korea.

Draft Is Still Not the Solution

The Services are no longer meeting their recruitment goals. In December 1998 the Navy had 22,000 shipboard vacancies. The Air Force has a substantial shortage of pilots. And, as the *New York Times* reported, "Recruiting soldiers has become so difficult that between now and May, the Army will give $3,000 up front to any reasonably able young man or woman who enlists. In the first quarter of this fiscal year, the Army fell short by 2,345 recruits, nearly 20% below its goal for the period, despite new ads, bonuses and an increase in college aid." In short, we are a very long way from the 1980s.

Some are once again advocating bringing back the draft, arguing that we need troops to fill the required billets and that compulsory service would "provide an antidote to the military's growing detachment from society." The problem is that this Administration, both by personal example and by failure to honor and support the nation's military needs, alienated a great many people who otherwise would have volunteered. Also, it has taken too long to recognize that recruitment promises for retirement benefits must be kept and that compensation must keep pace with inflation.

No Clear Vision

The past three years have seen a virtual moratorium on weapons procurement. And we have failed to fund research and development adequately. The military is aware we have no effective missile defense; it knows that our diplomacy has weakened several of our alliances, including NATO. We have also imposed vast new tasks on our underfunded military, such as tours at sea that far exceed recommended lengths of time and large commitments of troops to peacekeeping operations in Bosnia and elsewhere. We now are talking about committing several thousand more troops to Kosovo, troops that will have ill-defined objectives and will not be under American command.

This Administration's lower defense budgets were "justified" by the position that it would take many years for any country to develop or acquire weapons with the ability to attack us. North Korea's launch of a three-stage missile proved that assessment incorrect, but there is still little substance behind White House-generated headlines about missile defense and increased defense budgets. The Senate has passed a bill increasing troop compensation; if the House follows suit and the President signs the bill, a welcome first step will have been taken. But I doubt if that, or anything else, will overcome the correct impression that this President neither understands, likes nor sufficiently values our military's contributions. This is the true cause behind whatever "alienation" exists between the military and American society—and a draft will not cure that. ■

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Digital rules

Technology and the new economy

By Rich Karlgaard, *Publisher*
publisher@forbes.com

THE SMARTEST OF THEM ALL

MIRROR MIRROR, ON THE WALL, who's the *smartest* of them all? Garry Kasparov, the champion chess player? Stephen Hawking, the astrophysicist? Bill Gates, the world's richest man? A few darkhorse picks could include Oliver Sacks, the neuroscientist also touched by literary greatness; E. O. Wilson, the Harvard biologist, with his grand unifying theory of consilience; or Warren Buffett, with his spectacular 40-year record of outfoxing all other stock pickers.

My choice: Michael Jordan. The best marker of high IQ is an ability to recognize complex patterns and calculate probabilities; i.e., faster equals smarter. This is also true for computers. Bill Gates can beat most of us at poker, software, Scrabble and deploying capital into any business, and a Silicon Graphics supercomputer easily outcalculates a Dell laptop for most functions.

For humans, we use descriptors such as "IQ," "*g* factor" and "smarts." For computers, we talk about the "processing speeds" of chips and the "elegant simplicity" of software. A computer using a Pentium III chip that runs elegant software is faster, therefore smarter, than one using an older Pentium II that labors with bloated software. Speed plus software elegance equals computer intelligence.

Man versus Machine

In 1997 IBM lashed a dozen RS/6000 workstation computers together to make a single computer, Deep Blue, capable of analyzing 200 million chess moves per second. Its mission: to defeat the world's top player, Garry Kasparov. Deep Blue was programmed to "see" the chessboard and to counter with the best move. But IBM also coded into Deep Blue a memory bank of Kasparov's playing tendencies. Thus Deep Blue could recognize Kasparov's feints and, better, turn the tables on Kasparov by "setting him up" with feints of its own. Only a year before, a 100-million-moves-per-second Deep Blue had lost to Kasparov. But the new souped-up version toppled the chess giant and mocked the very humanity of this supremely smart man.

Lesson: The sheer rip-roaring speeds of tomorrow's superchips will knife through the densest software algorithms (which fairly describes all artificial intelligence problems). Faster chips soon will blur the distinction between humans and machines.

From the computer's point of view, the smartest human will be the last one standing after the computer has surpassed all the others. Hence, my vote for Michael Jordan. As measured by pure bits-per-second, Michael, at his peak, processed more information than anyone else. Standing at the top of the key, bent forward, ball in both hands, he would survey the nine other players on the court. Nine other players, each with histories and tendencies; nine against whom Michael's own skills were measured and ranked. Michael's read of the court would take a second; then he would take the game situation into account.

Scenario: Fourth quarter; Bulls are behind by four; 39 seconds to go. The opposing center has five fouls. But Michael's center looks tired. So Michael takes matters into his own hands—drives the lane, fakes left, nods right, goes left, spins, leaps, twirls under the basket, pumps once, switches to his right hand, thrusts upward, his wrist dunks over the opposing center's hand, but just by enough to draw the foul and set up a three-point play.

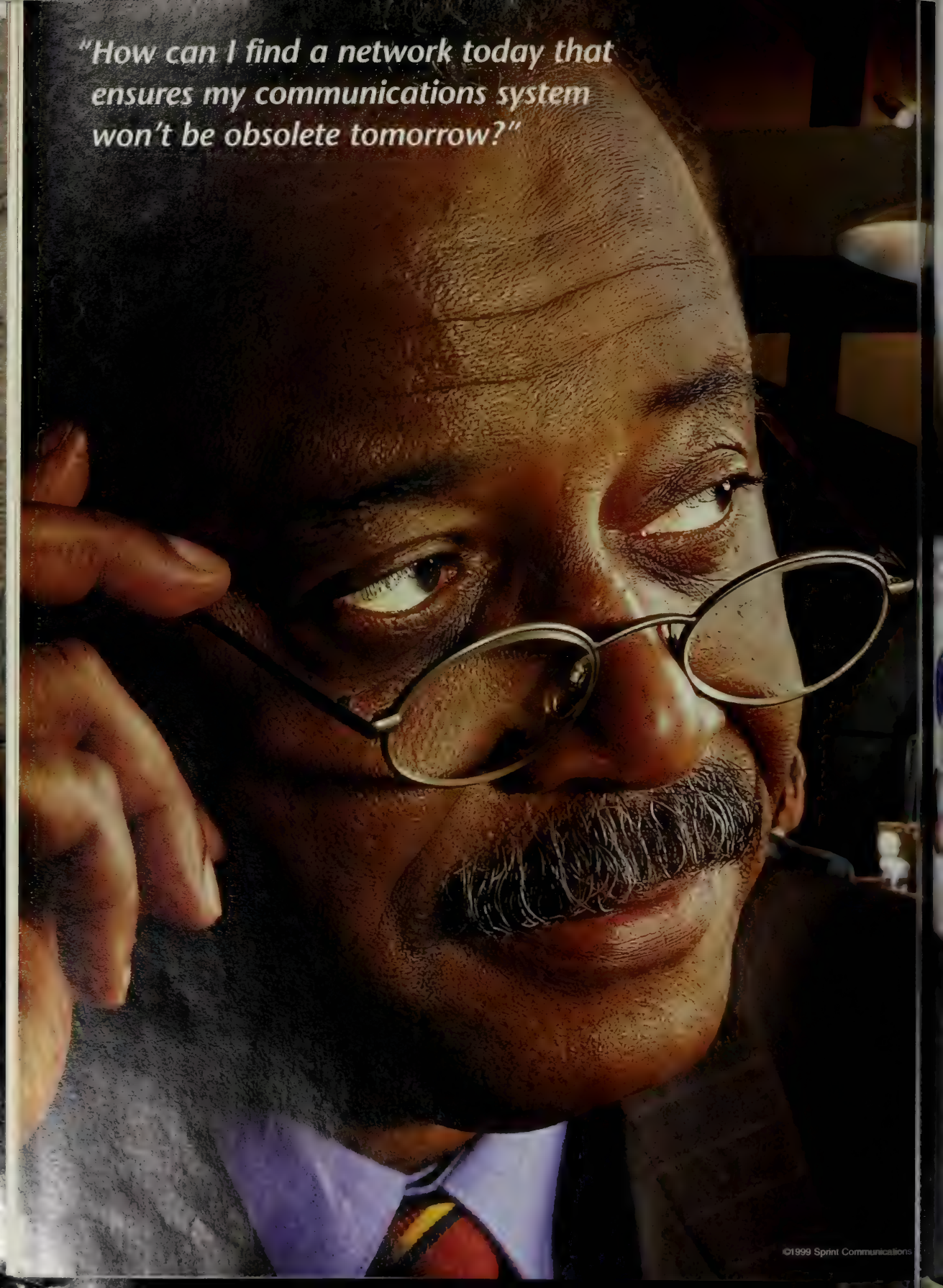
These kinds of calculations are well beyond the reach of Deep Blue. Even when Moore's Law delivers the necessary speeds to replicate Michael's thought processes—in about 25 years—the robot replicating his athleticism might be a century away. Kasparov is a very smart guy, but his greatest skill has already been matched. Computers will simulate Stephen Hawking and E.O. Wilson in another 15 to 20 years. But replicating the capabilities of the unparalleled Michael Jordan? That will be tough.

Speaking of Moore's Law

A real bummer for us veteran e-mailers is that lawyers have now discovered e-mail. Anything you have written can now be held against you. That marketing VP you once called a "fat cow" in a long-ago, late-night e-mail? Well, the VP's lawyer, prosecuting a sexual discrimination case on her behalf, has fetched it from an old server during the discovery process. She now has your delicates in a tightening steel vise. Yikes.

Worse is on the way. The combination of three forces—Internet telephony, speech recognition software and tomorrow's superchips—guarantees that every *phone call* of yours will produce an instant transcript! To ensure privacy during our off-the-record chats, we'll have to go to Gorky Park and wear Groucho Marx noses.

Strong private encryption, we need you! ■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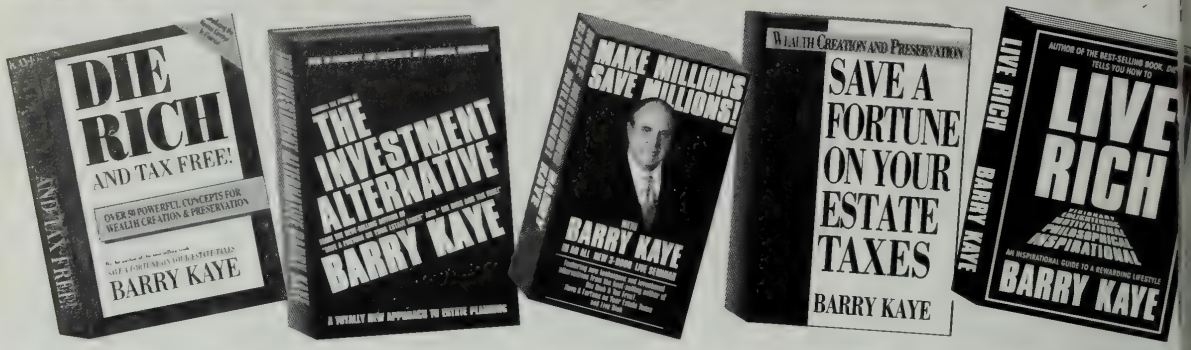

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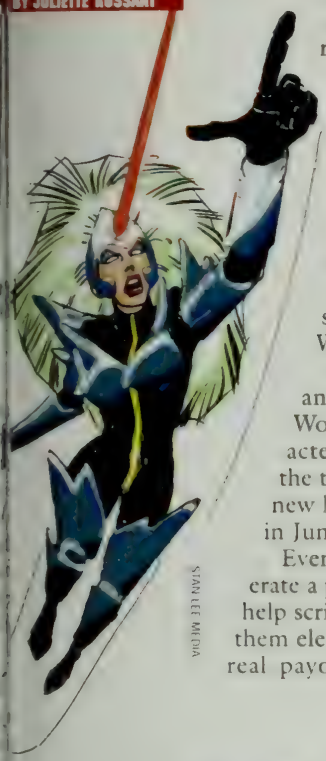
Spiderman's new Web

BY JULIETTE ROSSANT



THE FUNNY PAGES have turned awfully grim lately. Overall comic revenues have plunged 50% in five years to just $500 million last year. Spiderman and the rest of the Marvel superhero clique only recently limped out of bankruptcy court.

Here to save the day: Spidey's co-creator, Stan Lee. In typical superhero fashion, the 76-year-old comics legend is reinventing himself and assuming a new identity: Web-Man.

After toiling for 60 years with pen and ink, Lee is leaping into the World Wide Web, creating new characters and story lines and publishing the torrid tales on stanlee.net. Look for new heroes to zap new heavies starting in June.

Eventually Lee thinks the site will generate a publishing empire in which visitors help script new comics and then distribute them electronically. That might lead to the real payoff: Licensing deals for a single superhero can bring $30 million a year.

Lee's first new creations in 25 years will be villains, not heroes: Bearhug, whose squeeze renders foes powerless, and Laserella, who emits laserlike powerbolts from her fingertips. Why baddies first? "Without good villains, there is nothing for the hero to go up against," says Lee.

Four more villains arrive this summer. But fear not: Six saviors are also on the way, including Bearhug's opponent, whose name will be derived from a bull. All characters will be techno-savvy.

"Spiderman was bitten by a radioactive spider, but our new characters are getting their power in mysterious ways through the Internet," says Lee. For now, whether the power of e-commerce will follow remains a mystery.

Getting lucky

BY DOUG BONOVAN

"Anything that actually works will get a better share of the market."

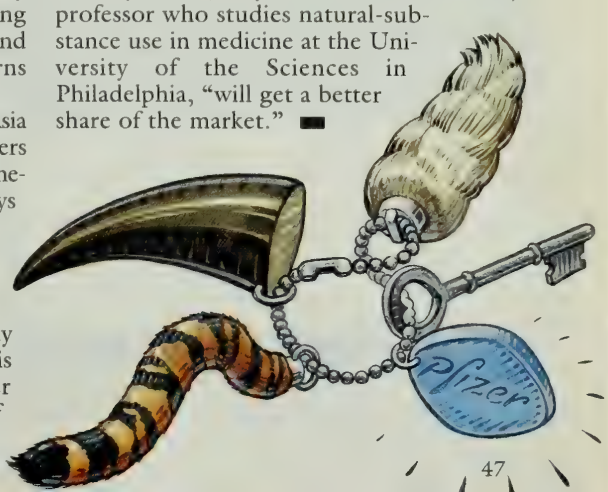
VIAGRA PUT SOME SPRING in the step of millions of men with sexual dysfunction. Now Pfizer's wildly popular pill is bound for Asia, and forget about the men—it could help save two of the world's most endangered species.

The impotence pill, already sold in Thailand and the Philippines, entered the Japanese market last month; human trials are under way in China and black-market sales are humming in Korea. Wide availability could curb demand for two more unorthodox fixes: rhino horns and tiger penises.

"Even though there are strong beliefs in Asia that these products are effective, consumers won't want to spend the money on them if something cheaper, like Viagra, works better," says Frank von Hippel, a conservation biologist at Columbia University in New York.

Today only 12,000 rhinos and fewer than 6,000 tigers survive in the wild. Poachers make big money selling the body parts as aphrodisiacs. The greatest demand is in China, Taiwan and Hong Kong. Pfizer will have to overcome thousands of years of tradition before Viagra can compete with animal parts, but price will help: On the Asian black market a bowl of tiger penis soup goes for over $300; a dose of Viagra costs roughly $7 wholesale.

The other selling point, as Bob Dole will tell you, is that Viagra works. "Anything that actually works," says Ara Der Marderosian, a professor who studies natural-substance use in medicine at the University of the Sciences in Philadelphia, "will get a better share of the market." ■



The Forbes/Bridge Economic Forecast Report

Edited by Shlomo Z. Reifman

THE U.S. ECONOMY	Actual latest	1998	1999 est mean	1999 est high	1999 est low	4-wk % chg in mean
Automobile sales (mil)	16.1 *jan	16.0a	14.7	15.7	13.9	1.3
Capacity utilization (%)	80.5 jan	80.8a	80.0	81.2	78.0	–0.4
New housing starts (thou)	1,632 *p jan	1,616a	1,517	1,624	1,400	0.7
Retail sales ($bil)	2,010 *p jan	2,223e	2,066	2,150	2,000	–1.7
Trade balance ($bil)	–169 *dec	–169a	–256	–153	–333	–5.3
Unemployment rate (%)	4.3 jan	4.3a	4.7	5.3	3.9	–4.6
Gross domestic product (%)	6.1 p 4th qtr	3.9p	2.6	3.6	1.5	11.9
INFLATION						
CPI services (unadjusted) (%)	2.5 *jan	2.6a	2.7	3.1	2.4	–3.3
CPI total (unadjusted) (%)	1.7 *jan	1.6a	1.9	2.6	0.9	0.5
INTEREST RATES						
30-year Treasury yield (%)	5.61	5.09a	5.26	6.00	4.00	2.1
3-month Treasury yield (%)	4.62	4.48a	4.50	5.50	3.25	2.7
PRICES						
CRB-Bridge spot indexes	224.92	235.22a	207.50	210.00	205.00	NA
Gold per troy ounce ($)	288.40	288.10a	280.00	300.00	250.00	2.4
Oil/bbl W Texas Intermediate ($)	12.68	12.05a	14.30	18.00	9.50	10.0
CURRENCY						
German marks per dollar	1.77	1.68a	1.69	1.82	1.60	0.0
Yen per dollar	120	114a	132	155	99	–0.8
Dollars per Euro	1.10	1.17	1.12	1.20	1.08	–5.9

FEDERAL FUNDS WATCH Next Federal Reserve meeting: Mar. 30, 1999

Current rate: 4.75% **Last action:** Nov. 17, 1998 –25 basis points

Likelihood of shift in interest rates in the next 90 days by the Federal Reserve

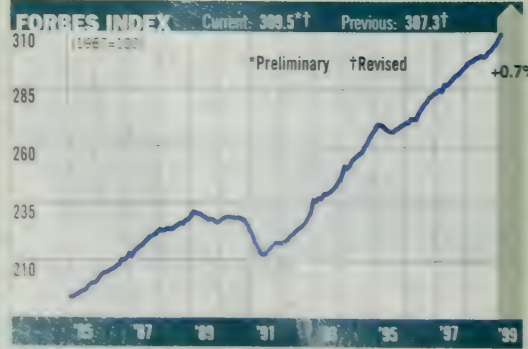
Very likely — Possibility of decrease or increase — Very unlikely

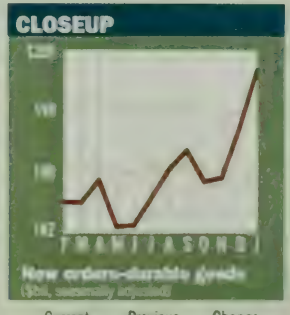
Estimates are contributed by leading economists, who a surveyed biweekly by Bridge Information Systems a Forbes magazine. Consensus forecasts as of 2/25/99.

Germany's gross domestic product w off 1.8% (annualized) in the four quarter; Japan's GDP was down 2.6% the third quarter. But U.S. GDP- adjusted for inflation—grew at a annualized rate of 6.1% in the la quarter of 1998. Bruce Steinber chief economist at Merrill Lync thinks that consumer demand w keep U.S. growth strong throug 1999. He does, however, expect co sumer spending growth to slow dow a bit this year, from a rate of 4.8 (after inflation) in 1998 to 3.8% i 1999. Steinberg expects U.S. GDP t grow at a healthy 3.5% in 1999, versu a 2.6% consensus forecast from th Forbes/Bridge survey economists. Fo reference: The economy expande 3.9% (preliminary) in all of 1998.

SPECIAL FOCUS

The Consumer Price Index (not adjusted for seasonal fluctuations) rose just 1.5% over the 12 months ending in January and 1.6% last year. For all of 1999 Forbes/Bridge economists expect another slight increase in the CPI: up 1.9%.





Current	Previous	Change
$203.4	$195.7	3.9%

The Forbes Index is a measure of U.S. economic activity composed of eight equally weighted elements: the cost of services relative to all consumer prices, the level of new orders for durable goods compared with manufacturers' inventories, total industrial production, new housing starts, personal income, new claims for unemployment compensation, total retail sales and total consumer installment credit.

Our Web site, www.forbes.com, has daily updates on economic estimates.

[illegible] a actual e estimate p preliminary. Au[illegible]ght and heavy trucks including imports. [illegible]Total single and multiple family, unadjusted. [illegible]Excluding auto sales, annualized and seasonally [illegible]. [illegible]Total goods and services, annualized and seasonally adjusted. [illegible]Percent of civilian labor force. [illegible]Quarter-to-quarter percent change, annualized. NA Not available.

Sources: Bridge Information Systems Inc., Forbes

At what point in your ascent did you leave your youthful spirit behind? The 290-horsepower 1999 LS 400.

LEXUS

THE RELENTLESS PURSUIT OF PERFECTION.

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INTERNET Media companies are losing millions on the Web. How to stop the bleeding? Sell stuff.

Desperate.com

By Daniel Lyons

TIME WARNER INC. LOOKED LIKE a winner when it opened an outpost on the World Wide Web, combining its popular magazines—*Time, People, Fortune, Money* and *Entertainment Weekly*—into a single megasite called Pathfinder.

Five years later Pathfinder still hasn't plowed a path to profits. The site generates only a fraction of the traffic seen at sites like Yahoo and Lycos. By some estimates Time Warner has spent $100 million on Pathfinder and lost $30 million for its trouble. (The company says the red ink is less but won't spell out the figure.)

How to turn things around? Two magic words: electronic commerce.

That, at least, is the hope of Time Warner and other media companies. The business model that works in print—serving up content to lure an audience big enough to charge advertisers hefty fees to reach it—is a flop on the Web thus far. Now these companies embrace the hard sell on their sites, blurring the lines between covering things and pitching them.

In January Time Warner launched a division to chase on-line sales, plotting tie-ins that would bring shudders from journalists if applied to the world of ink and paper. Example: Girls can read up on clothing and cosmetics on the *Teen People* site, then click on a button to buy them.

"Really, we don't see any brands in our stable that aren't leverageable on the Web," says Michael Pepe, president of the new division.

Some of the biggest names in print now hawk everything from books, music and videos to used cars and travel advice. Condé Nast's epicurious.com and GQ.com sites are striking deals to cut the middleman for other marketers. The *Los Angeles Times* is teaming with a travel service and a link to autobytel.com on its house. The *New York Post* is building a digital mall, *Business Week*'s cyberstore lately touts towels, tennis balls and travel, and even the august *New York Times* hopes to rake in a share of book sales driven by its own reviews; such fees typically run 7% to 15%.

Can you trust a glowing book review from a newspaper that gets a cut of the book's sales?

But can you believe a glowing book review when the newspaper hopes to take a 15% kickback by steering you to barnesandnoble.com? "It raises real ethical concerns," says Paul McMasters, an ombudsman at the Freedom Forum, a media foundation in Arlington, Va.

"As we rush headlong into the future," frets Steve Geimann, ethics chairman of the Society of Professional Journalists, "nobody is really considering the effect this technology is going to have on what we stand for as journalists."

But somebody has to pay the bills. Hundreds of newspapers and magazines have spent more than a billion dollars collectively so far to set up newsstands in cyberspace. Virtually all of them remain in the red.

Worse, the money-draining new medium threatens a mainstay of the old one: classified ads, which bring in $17 billion a year for newspapers. Until recently, however, old-line media outlets were downright prissy about trying commerce on their sites. "Traditional media companies came to the Web with antiquated ideas and business models, and that hurt them," says

Time Warner's Michael Pepe, a pathfinder in search of profits.

The blurring line

Newspapers and magazines that solemnly separate stories from ads in the print world have no problem mixing the two on-line. From tennis balls to books, no hard sell is out of line. But even that may not be enough to help media firms turn a profit on the Web.

JOSHUA MCHUGH

Clinique chic on Pathfinder

Courting buyers at BusinessWeek

Razor sharp on MarketWatch

Dollars for scents on LA Times site

Booking a sale at the New York Times

Source: Media Metrix

Jupiter Communications analyst Anya Sacharow.

None of the top Web sites belongs to a traditional media company; a lack of buying options may be one reason why. Newer rivals—Web portals such as Yahoo—blend content and commerce without batting an eyelash. "We liberally mix in advertising wherever we see fit," says Maria Wilhelm, a senior vice president at Netscape's Netcenter portal, one of the busiest sites on the Web.

Some print outlets are catching up. Editors at Condé Nast's *Gourmet* and *Bon Appétit* would sooner be boiled in oil than become sales agents for a cookware line. But doing so at its Epicurious Food site is deemed synergy. "It's a different medium, and there are different expectations," says Sarah Chubb, CondéNet's managing director. "We're just trying to be useful to our audience."

One of the first such moves came in 1996 when Amazon.com started paying fees to media sites for on-line links that sent shoppers to its site. That set a model for others. Now marketwatch.com, the business news site in which CBS Corp. and Data Broadcasting Corp. each hold a 38% stake, collects royalties from Sharper Image and gets a bounty from on-line brokers based on the number of new accounts they sign up, says Lawrence Kramer, chief executive of MarketWatch.

Forbes.com contains ads that link readers to on-line brokers, but it's a straight advertising deal with no extra upside. The *Wall Street Journal* is one of the few newspapers to charge for subscriptions to its on-line version; 265,000 customers now pay $59 a year ($29 if you have a print subscription). But why leave money on the table? The *Journal* is in talks to sell books and computers through deals with on-line vendors, says Neil Budde, editor of the paper's interactive edition.

Such deals hark back to newspapers at the turn of the century, says Gerald Baldasty, a professor at the University of Washington in Seattle. Until 1912 newspapers weren't legally required to tell readers which articles were real news and which ones were paid for by advertisers. That practice litters some Web sites today; look for more of it.

The question is whether even e-commerce will yield a payoff for media companies. The average royalty deal pays about 10% of a sale to the content site that delivers the customer. Absent huge volume, there isn't a lot of money to be made. Electronic commerce will explode in the next five years, but only a tiny fraction will go to media companies, says forecaster Forrester Research.

"Subscriptions didn't work, ads didn't work, so now these guys all see electronic commerce as the holy grail. But they're living in fantasyland if they think electronic commerce is going to save them," says Forrester analyst Bill Bass.

Even some media mavens have their doubts. Hachette Filipacchi Magazines, whose titles include *Car and Driver, Travel Holiday, Elle* and *George*, will start selling travel services through the Travelocity site owned by American Airlines' Sabre Group. But James Docherty, Hachette's new-media president, isn't pinning much hope on it. "I'm not convinced there are so many people on the commerce side who are making a profit," he says.

Maybe Time Warner can write a different story. It already generates billions in direct sales through Book-of-the-Month Club and Time Life Inc. Michael Pepe says he can leverage that strength into a "mind-boggling" e-commerce business worth billions per year. So many opportunities loom, he says, that Time Warner can't even go after all of them. "The real issue is going to be setting priorities," he says.

Priority Number One will be making a profit. Which, if Pepe can pull it off, would be mind-boggling indeed. ■

MEDIA How did the Disney-Miramax marriage work out so well? A strong prenup, and they don't see much of each other.

The odd couple

By Daniel Lyons

IT SEEMED LIKE THE MATCH made in hell when Walt Disney Co., the most controlling company in Hollywood, acquired Miramax Films, the maverick art-house studio run by Bob and Harvey Weinstein. Disney, purveyor of pablum like *Honey, I Shrunk the Kids*, getting its mass-market paws on Miramax, whose credits included edgy, independent flicks like *Sex, Lies, and Videotape*?

But here's an unexpected plot twist: This is a marriage that works. Disney has been uncharacteristically willing to let the Weinstein brothers make whatever movies they want. Disney paid all of $80 million for Miramax in 1993. The deal looks like a steal now. Five years of Disney distribution and Weinstein wit have made Miramax into a gold mine, with pretax profits of $125 million last year, up 18-fold in five years.

"Their investment has paid off tremendously," says Bob Weinstein, Miramax's cochairman. His brother adds: "Disney has provided the capital for us to expand, while at the same time very graciously giving us the autonomy to make all the decisions ourselves."

Miramax has evolved from simply distributing movies to producing them—and what pictures. *Shakespeare in Love*, a Miramax production, was nominated for 13 Oscars for the Mar. 21 Academy Awards. Earlier Miramax hits: *Pulp Fiction*, *The English Patient* and *Good Will Hunting*. Those post-Disney movies managed a rare twofer: They won critical acclaim while earning piles of money.

The Weinsteins spent their teenage years watching films by Fellini and Truffaut at the art-house cinema near their home in Queens, N.Y. They founded Miramax in 1979, buying movies that others had made, often from abroad, and distributing them in North America.

DANA LIXENBERG

PHIL BRAY

Bob and Harvey Weinstein add class—and cash—to the Mouse House.

It was a modest business. They'd make enough on one movie to buy the next one. Then, in 1989, the Italian import *Cinema Paradiso* took in $23 million at the box office. In 1992 they scored again with *The Crying Game*, which took in $60 million.

Disney came calling. The entertainment titan hoped to capture "cappuccino dollars" from audiences that shunned Hollywood films in favor of offbeat fare. Another motivation: Disney hoped to add Miramax's live-action films to its library, which was heavy on animation.

The Weinsteins were wary of Disney at first. They made Disney promise—in ink—to keep hands off. "I think the word 'autonomous' appears in the contract more than any other word," Harve Weinstein says.

It helped that Disney was distract ed by its $19 billion acquisition c Capital Cities/ABC in 1996. "Th largeness of Disney works well fo us," Harvey continues. "They hav so many divisions, they aren depending on Miramax. We're no going to make or brea them."

The Weinsteins spea with Michael Eisne Disney's chairman, twice month. They speak wit Disney Studios boss Joe E Roth regularly, too. Mira max has kept its New Yor offices, and all 300 employ ees are its own— Disney didn't impos any cast members.

The autonomy doe n't extend to films wit an NC-17 rating. (Jus once the Weinstei sidestepped tha restriction, creating subsidiary in 1995 t release *Kids*, a raw an disturbing flick, shu ting the unit dow thereafter.)

Also, the Weinstei can't let a productio budget go above $2 million without green light from Rot That's peanuts in a industry that spends a average of $50 millio to make a film, but th Weinsteins know a about penny-pinchin About a third of the profits come from subsidiary, Dimensio Films, that makes film like *Scream* and *Screa 2*. These cost abo $15 million apiece an took in more tha $100 million each ticket sales plus mi lions more from vide sales and other rights

For movies that g above the limit, Mir max gets creativ *Shakespeare in Love* co

DAVID M. MOIR

LAURIE SPARHAM

SERGIO STRIZZI

The English Patient
Cost $27 million, took in $215 million worldwide, and won 9 Oscars.

Scream
Cost $15 million, took in $103 million in North America.

Shakespeare in Love
Nominated for 13 Oscars.

Life Is Beautiful
Highest-grossing foreign film ever in the U.S. Nominated for 7 Oscars.

$32 million to make, but Miramax split the cost with Universal Studios, keeping its exposure to $16 million. Roth okayed *The English Patient* at $27 million and didn't regret the decision. The film grossed $215 million at the box office worldwide and won nine Oscars, including best picture and best director.

A new Miramax TV division is developing shows for the 1999–2000 season, and a monthly magazine called *Talk* will make its debut in August under former *New Yorker* editor Tina Brown. *Talk* just took on Hearst Magazines as a partner, in a deal that Disney's Eisner helped broker—another way in which Miramax has been able to take advantage of Disney's connections.

The cinema snobs who were wringing their hands six years ago? Disney has made the world a better place for them. ■

RETAIL Entertainment and retailing are two very different businesses. Even mighty Disney has hit a wall.

Theme players

By Kelly Barron

Discovery Communications—the folks who bring us cable documentaries on shark attacks, copulating insects and the *Titanic*—spent $20 million building a four-level Taj Mahal of a store in Washington, D.C. The 30,000-square-foot shop, decorated with a life-size *T. rex* skeleton and the fuselage of a World War II B-25 bomber, is the flagship for a chain of Discovery theme stores. "The stores will reinforce loyalty to our networks," asserts Michela English, president of Discovery Enterprises Worldwide. "There's a billboard impact in having the Discovery name on stores."

English hopes that shoppers browsing stores will increase viewership of the Discovery Channel, the Learning Channel, Animal Planet and the Travel Channel and, in turn, increase advertising revenue. It's difficult to track the connection, she admits. But this "edutainment," as she calls it, is all about creating synergy and building brand awareness.

It's an expensive way to advertise. Look at what's going on: Discovery bought the unprofitable Nature Co. in 1996, a chain that hawked bird feeders and other eco-gimcracks, and plans to convert its 100 locations. By 2003 the company hopes to have more than 200 stores. But the existing 35 Discovery shops have yet to make any money, and English doesn't expect them to make money for another two to three years.

Advice to Discovery: Before you put any more capital into this venture, see how other entertainment companies are making out with their vanity shops.

Pricey ads: Discovery's stores (top) lose money. Disney's are slowing.

Two years ago Viacom Chairman Sumner Redstone heralded the opening of a Viacom theme store on Chicago's Michigan Avenue, where annual rents run to $150 a square foot. The store was going to exploit those uniquely valuable characters from *Star Trek*, *Beavis and Butthead* and MTV. Redstone said his company had "pulled together some of the greatest minds in retailing" in hopes of creating three to four stores in U.S. cities and franchises overseas.

In January Viacom closed the Chicago locale. It never opened the others. It also closed its nascent chain of 15 stores centered on its Nickelodeon kids' channel.

Even Disney, the granddaddy of theme-store retailing, has stumbled. Sales at Disney stores open a year or more plunged 10% in the quarter ended Dec. 31. What's the matter? You can get a stuffed character from *A Bug's Life* on the Disney Internet site or at Wal-Mart. You don't need to visit one of Disney's 730 theme stores.

Salomon Smith Barney analyst Jill Krutick expects the stores' operating profit (net before depreciation, interest and taxes) to be down 5%, to maybe $85 million in the fiscal year ending September. That's an operating margin of 3.6%, compared with 9.5% for specialty retailers tracked by *Value Line*.

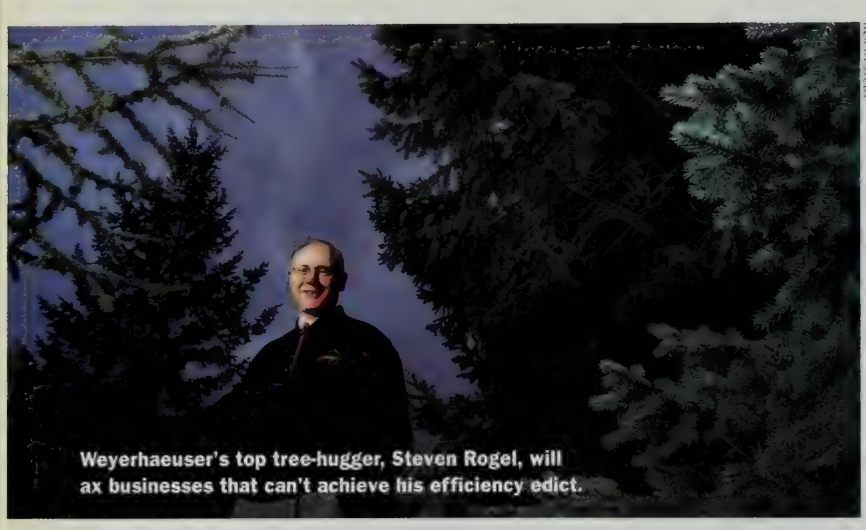
Time Warner, one of the early players in the theme-store game, is halting domestic openings for its Warner Bros. stores. As it expands internationally, it will be relying on joint venture partners and franchisees. Metro-Goldwyn-Mayer briefly considered opening a chain of theme stores to sell merchandise using its Pink Panther character—but opted instead for licensing deals with established retailers like Neiman Marcus.

Theme restaurants, like Rainforest Cafe and Planet Hollywood, have foundered after a first rush of business from novelty seekers. Theme stores may suffer the same fate. "Once you've seen it, you've seen it," says Kurt Barnard, of *Barnard's Retail Trend Report*. "A theme store cannot reinvent itself every four weeks." ■

COMPANIES Asset rich and earnings poor, Weyerhaeuser needed an outsider to shake some money off its trees. Now it has one.

Out of the woods?

By Seth Lubove



REX RYSTEDT

Weyerhaeuser's top tree-hugger, Steven Rogel, will ax businesses that can't achieve his efficiency edict.

ALIGHTING FROM a stomach-heaving helicopter tour in the famously stormy Pacific Northwest, a wobbly Weyerhaeuser Co. flack admits it was the bumpiest of his many flights over the company's vast timber operations. The company's long-suffering shareholders know the feeling.

The $10.8 billion (1998 sales) company is one of the world's largest private owners of softwood timber. This, at a time when public forests are increasingly being put off limits to cutting, should make Weyerhaeuser valuable. But in the past five years it provided investors a grand-total return of only 35%. Down Interstate 5, Willamette Industries, a competitor barely a third of Weyerhaeuser's size, did nearly double that. So much for the theory that market leaders get all the gravy.

Ruled since the 1960s by the patrician George Weyerhaeuser, great-grandson of founder Frederick Weyerhaeuser, then from 1991 to 1997 by inside lawyer John Creighton Jr., the company has had all the pizazz of peeling bark. Directors led by Weyerhaeuser and William Ruckelshaus moved to poach Steven Rogel, the head of pesky Willamette, to be the first chief executive (and soon to be chairman) hired from outside in the company's nearly 100-year history.

Though the company improved under Creighton, Rogel, 56, didn't need his spectacles to see the problem: "I don't think we fully recognized we are commodity players and to be at the top of the game, you have to be efficient." Despite a domestic home-building boom that in decades past would have sent lumber through the roof, lumber prices are lower than they were in 1993. Asia used to absorb a large fraction of the trees downed in the Northwest, and it isn't absorbing much now.

So while the low-slung, Skidmore, Owings & Merrill-designed Federal Way, Wash. headquarters still boasts its own barber shop and drop-dead oak-grain paneling, the cushiness ends there. Under the hard-nosed Rogel, a chemical engineer raised in an eastern Washington farm town, every business has had to justify itself or expect to be axed. "We're not i the business of producing high-tec widgets, raising salmon or lettuce, c embalming trees," he avers, alludin in some cases to ex-Weyerhaeuse operations. "In today's world, wher businesses are global and people ar refining things down to the last cen of efficiency, you can't be all things t all people."

That's become business boilerplate but Rogel followed it to the letter a Willamette, where in barely six year in top posts he doubled operatin margins to as much as 30%.

His strategy at Weyerhaeuser which he has refined over the pas year into a single-sheet "Roadmap fo Success" for all 37,000 employees brings the company back to its roots squeezing the sawdust out of its 5.. million acres of timberlands in th U.S. (and 27 million acres leased i Canada). That means you try to ge the most lumber you can cut fron the log, then take what's left and us it for pulp and papermaking.

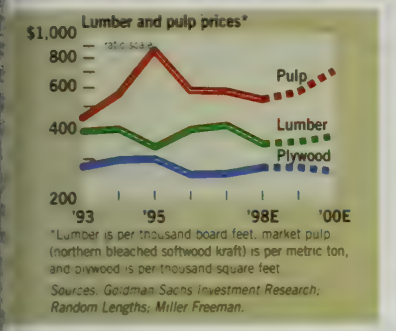
At the company's 700-acr Longview, Wash. complex, its North Pacific Paper Co. (a joint venture with Japan's Nippon Paper) is inten on decreasing waste. For instance three lines of machines that conver soaking-wet pulp at one end into 30 ton rolls of newsprint now suffe only a 12% reject rate, down fron 17% at the end of 1996.

What caused the decrease Employees started looking at thei operation as one continuous proces from pulp to paper, instead of as collection of separate businesses. A 400-foot-long line of paper scream through at 52 miles an hour. It car take at least 20 minutes to rethrea the paper, an eternity in a capital intensive business. Before, the pape would break at least three times a day Now it's down to only three breaks week, and the company wants to ge it down to three breaks a month.

Technology helps the efficiency quest. At the company's Greer Mountain sawmill, in the shadow o Mount St. Helens, workers hunch over grinders that resharpen the teeth on circular saw blades. In the pas month the company installed computerized video scanner tha instantly checks the calibration of the

Beaten to a pulp

Though lumber prices will likely rise, Steve Rogel is demanding harmony—no matter what happens.



blade teeth and converts it into data for the grinder.

"We're getting closer and closer to perfection," says John Gotshall, the lumber sales and supply manager for the mill, which ekes out thin margins under the best of circumstances.

Even the company's helicopter pilots are being pressed to come up with more efficient ways of dumping fertilizer pellets on Weyerhaeuser's vast patchwork acreage. A new satellite navigation system helps.

Few departments are immune from Rogel's edict that they learn to act like one company, rather than a loose collection of fiefdoms. To take advantage of the company's potential purchasing power, he's ordered everybody to use the same travel agency. The paper mills have saved $9.2 million on just one machine part by going to four vendors, compared with more than a dozen before. Next up: a mess of incompatible information technology systems—22 of them just to track paper rolls. "People have given up their turf, and now we're on the long road to a coherent, cohesive system," Rogel says.

Tired of watching Weyerhaeuser's hard-earned patents and other research and development sit unused or be bought off by competitors, Rogel insists the "almost university-like" R&D unit work closely with operating divisions to come up with, for example, more absorbent diaper "fluff" pulp.

Add it all up, and Rogel is demanding that the company up its net return on assets to 17%, compared with last year's anemic 7%. In his rehab effort, he doesn't have much maneuver room: He is loath to cut the generous dividend of $1.60 a share that keeps the scattered Weyerhaeuser clan in small luxuries. If the dividend were cut, they might have to sell shares—a depressing prospect in a market where forest-product companies are quite out of favor.

In that context, BT Alex. Brown's Mark Wilde is willing to make a bet on a rebound in log prices and on Steve Rogel. Says he: "Fortunately, the real objective is not to simply be the best of a rather sorry lot." ■

ON-LINE

Amazoned!

	Industry	Size of market	Size of e-market	What's the buzz
	Leisure travel	$351.4 billion	$7.8 billion	Expedia, Travelocity already there; more to come.
	Brokerage services	Trillions of dollars	$397 billion (assets managed)	Charles Schwab & Co., E-trade, et al.
	PC hardware (consumer)	$41.2 billion	$2.4 billion	Dell hums; Compaq just getting started.
	Books (consumer)	$15 billion	$1.2 billion	Amazon still No. 1; Barnes & Noble plays catch-up.
	Auto sales	$447 billion	$6.5 billion (referrals)	Autobytel leads, but will GM, Ford and Chrysler wade in?
	Some Looming Targets			
	Drugstore products	$153.6 billion		A hot prospect is drugstore.com; PlanetRx isn't far behind. 1999 sales: $509 million.
	Furniture	$71.6 billion		Customers may buy $319 million in household goods this year, sight unseen.
	Music	$13.7 billion		On-line sales at CDNow, etc. are coming on fast—$374 million in 1999.
	Shoes	$20.4 billion		Could be a $100 million business this year. But will the shoes fit?
	Hardware stores	$14.6 billion		Sales could hit $139 million this year, but might end a Saturday morning ritual.

Market sizes for leisure travel, auto sales, drugstore products, furniture, shoes and hardware stores are for 1997. Market size for music and e-market size for auto sales are for 1998. All other figures are estimated for 1999. Sources: Autoweb.com; Dataquest; drugstore.com; Forrester Research; National Automobile Dealers Association; Recording Industry Association of America; Travel Industry Association of America; U.S. Census Bureau.

Will nothing be spared from the on-line onslaught? John Doerr of Kleiner Perkins Caufield & Byers, Silicon Valley's reigning venture capitalist, wants to turn "Amazon" into a verb—as in "to Amazon" a market. Amazon.com hasn't scored a profit yet, but it has turned the once-sleepy bookselling industry into a high-tech marvel. Now on to drugs, at least the legal ones. It's such a tempting market—$154 billion in annual sales—that Amazon holds a 46% stake in drugstore.com, the new Web site also backed by Kleiner Perkins. "Nobody likes to go to the drugstore," says Peter Neupert, chief executive of drugstore.com.

So what's next? Some markets ripe for Amazoning already see new entrants, while others are bracing for the inevitable invasion.

–ELIZABETH CORCORAN

TECHNOLOGY Bandwidth may be infinite, but land is not. Here's the latest play in the wireless game.

Tower power

By Michelle Conlin

PHILIP ANDERSON

REAL ESTATE STOCKS are in the dumps. From operators of trailer parks to collections of Class A office space, the shares of real estate companies are down 26% from September.

But one obscure corner of the real estate business, one that's only a few years old, is in a bull market: wireless towers. This bane of every neighborhood zoning czar is emerging as the hot new play. Shares of the two top publicly traded companies *(see table)* that own towers are up an average 52% since September.

Six wireless carriers now compete in most of the top 15 U.S. markets. It's a buyer's market. But the supply of choice transmission sites is short. With at least 92 million dropped or interrupted calls every month, demand for better wireless coverage is intense. There are now about 65,000 towers in the U.S. Carriers will need 35,000 more by 2004.

Demand for good sites is so intense that Samuel Zell's Chicago-based Equity Office Properties has seen rents for its rooftops double since 1996, to more than $1,600. In contrast, rents for the new office space below are only up 25%.

Steven Dodge sees the value in such vertical real estate. In 1995 the former lending officer at BankBoston took his American Radio Corp. public at $16.50 a share, then sold the company's 100 radio stations to CBS three years later in a deal worth $2.6 billion. For each American Radio share, Dodge's original investors got $44 in cash and one share, worth $21, of a newly created public company, American Tower.

With this new Boston-based company, Dodge kept control of the towers the stations used, figuring—correctly—that he would have no problem renting antenna space on the towers to cellular phone operators. Shares now trade at $25. American Tower has 3,200 towers, more than any firm in the U.S., and it is buying and building rapidly. Dodge aims to have 10,000 by 2003.

Carriers are only too happy to sell these vertical eyesores to entrepreneurs like Dodge—and get the debt used to finance them off their balance sheets. Carriers also don't want competitors sharing their tower space. A third party can more easily rent to multiple tenants.

Bell Atlantic was the first to throw in the towel. In December it sold off its 1,427 towers to a joint venture with Crown Castle International Corp. Bell Atlantic got $380 million in cash and a 37.7% equity stake in the joint venture worth $240 million.

Two months later Nextel followed suit by selling its 2,000 towers to privately held SpectraSite for $560 million in cash plus a 17% equity stake in the company worth $70 million.

Where's all this cash coming from? Mostly debt. A lot of the tower outfits have debt loads of 65% of capital or more. Carrying costs are high. None of the firms is making a profit yet.

But the potential is certainly there. Towers positioned on the ground cost about $200,000 to build. Operating costs hover around $10,000 a year no matter if there's one tenant or ten. Rents run from $2,200 a month per tenant for a city like Boston down to $500 in a rural area.

American Tower's Dodge gets an average of 4.5 tenants on each of his towers in Florida. In a city, of course, he has to pay rooftop rent to a Sam Zell. Still, Dodge says that in some areas he's seeing a 40% cash-on-cash return, meaning that if he spends $200,000 on a site he will pocket $80,000-a-year over and above the minimal operating costs.

Build a hotel and you have to fluff the pillows every day. "With a tower all you have to do is put down the weed killer and mow the grass," says SpectraSite's chief executive Stephen Clark.

Clark not only plans to increase the number of cellular tenants on the former Nextel towers, but he also won the rights to build 1,700 more towers for Nextel over the next five years.

Expect more deals like these. Already rural affiliates of AT&T and Sprint are using the tower companies to do the building and managing for them.

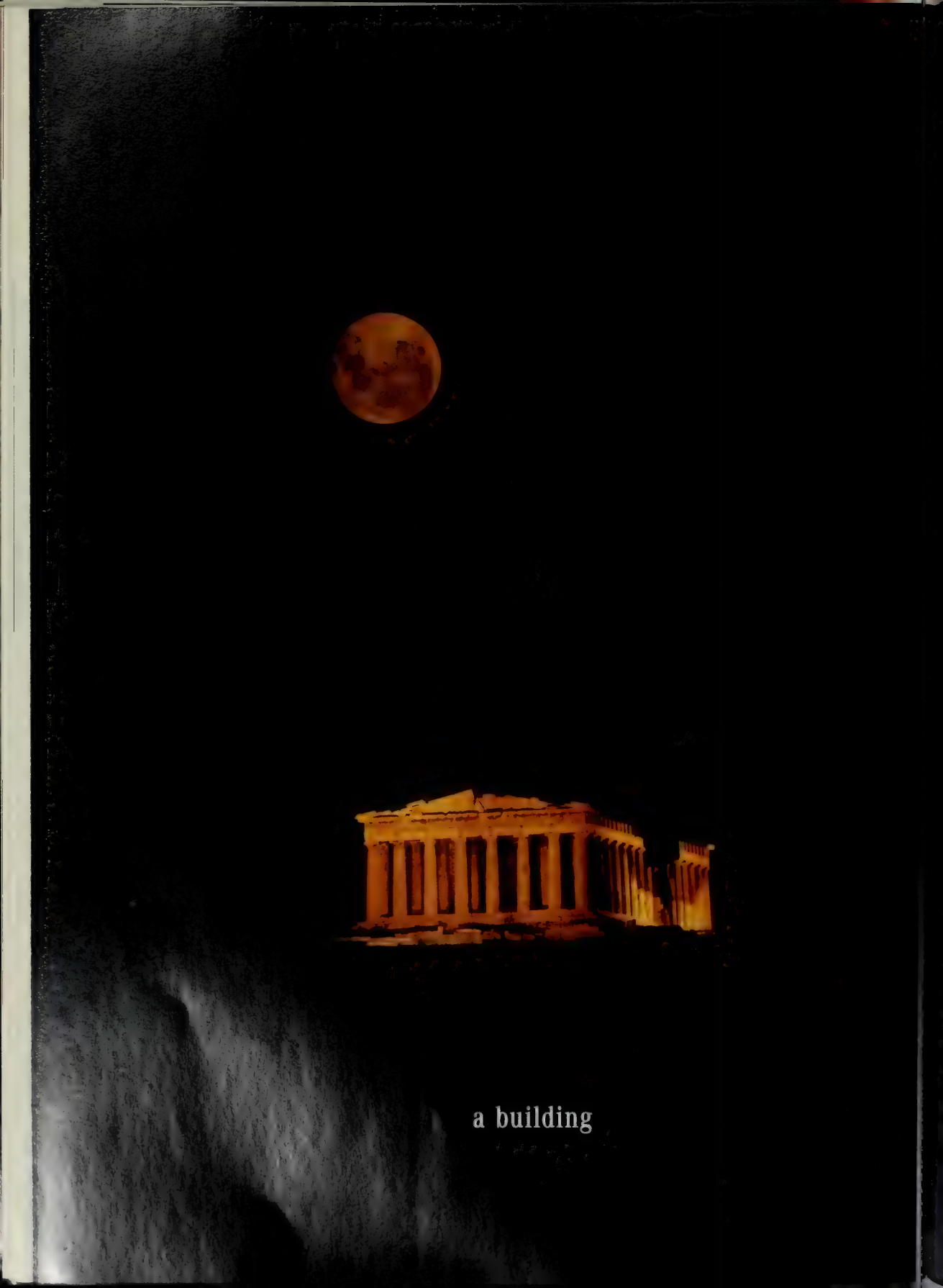
Someday there will be a glut of wireless towers. But that's a few years off. ■

Titans of tower

Company	Ticker	Towers owned	Tower revenue ($mil)*	Oper income ($mil)*	Oper income margin*	Acquisitions
American Tower	AMT	2,633	$137	$87	64%	OmniAmerica, Telecom towers
Crown Castle†	TWRS	2,003	76	52	69	Bell Atlantic's towers
Pinnacle	BIGT	1,040	56	46	83	MobileMedia's towers
SpectraSite	private	2,125	58	36	62	Nextel's towers
SBA	private	520	27	15	56	Fifty-one mom-and-pops
WesTower	WTW	234	11	7	63	Koch Industries' towers

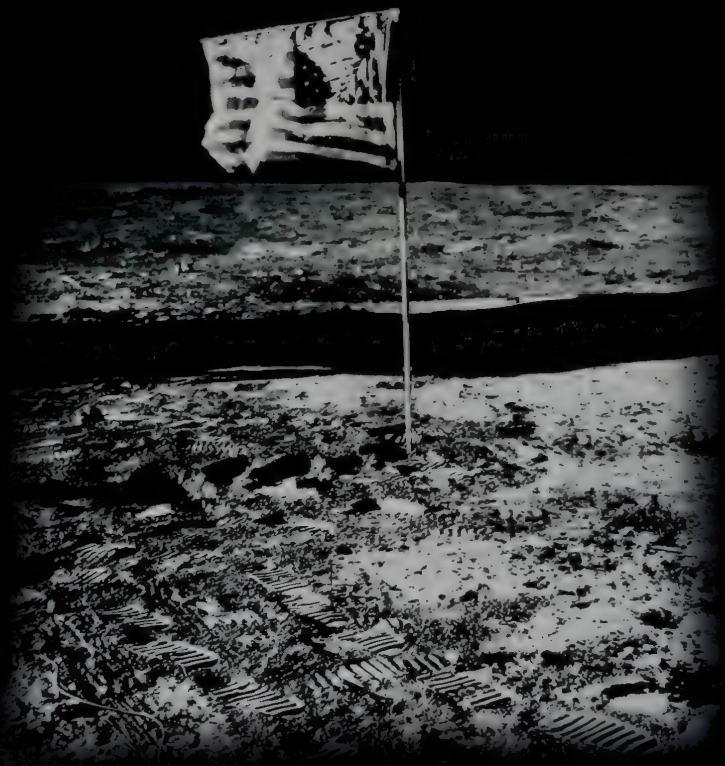
*Est. 1999 pro forma U.S. operations, excludes managed towers and corporate expenses. Operating income equals net before depreciation, interest and taxes. † Excluding U.K. operations. *Source: Doug Mitchelson, BT Alex. Brown.*

an actor



a building

a writer



a visit

a ballplayer

a car

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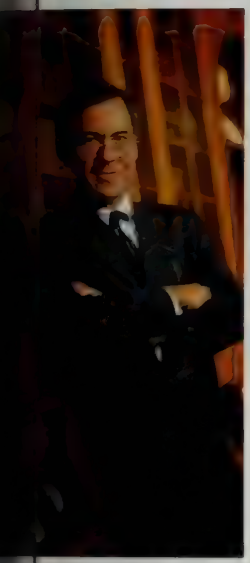
By Steve H. Hanke

Currency crises and the rewriting of history



Robert Rubin has concocted a tale about the currency crises, and prestigious elements of the media have fallen for it.

SOMEDAY Treasury Secretary Robert Rubin just may come through on his threats to resign. The Clinton Administration would probably like to install his deputy, Lawrence Summers, as successor. To make this scheme work, the Administration has to paint both Rubin and Summers as saviors of the world financial system. And so Washington is busy rewriting history.

Rubin and Summers have concocted a tale about the financial crises that have racked Asia, Russia and Brazil, and prestigious elements of the media have fallen for it. The *New York Times* published a four-part series of this revisionist financial history during the week of Feb. 14.

Here is the story line: No one forecast the Asian crisis. And after currency chaos engulfed Asia, no one anticipated that the contagion would spread to Russia and then to Brazil. Rubin and Summers came to the rescue with an endorsement of International Monetary Fund moves to devalue currencies and impose austerity. The story ends with a chapter asserting how much worse the crises would have been were it not for Rubin, Summers and Alan Greenspan. *Time* magazine's cover story of Feb. 15 went so far as to dub these three amigos "The Committee to Save the World."

Balderdash! Plenty of people could see that a Third World currency crisis would spread.

Starting with my column of Aug. 11, 1997, I have written 14 FORBES articles and participated in two FORBES Q and A interviews in which I explained the Asian financial crisis and how it would spread like a prairie fire to Russia and Brazil. My Oct. 20, 1997 column concluded that Brazil's fatally flawed currency setup would be defended at all cost until the October 1998 presidential elections, after which the real would fall apart. My Mar. 9, 1998 piece anticipated that Russia would virtually run out of foreign reserves by the end of June and that the ruble would collapse not long after.

We will never know with scientific certainty about the effect the Rubin-Summers therapeutics had on the crises. However, the IMF admitted in a January report, "IMF-Supported Programs in Indonesia, Korea and Thailand: A Preliminary Assessment," that mistakes were made. P.G. Wodehouse's character Ukridge comes closer to my own assessment of the probability that IMF-style therapy could be successful: "about as much chance as a one-armed blind man in a dark room trying to shove a pound of melted butter into a wild cat's left ear with a red-hot needle."

And what about the Rubin-Summers claim that they have been serving up free-market solutions? Their free-market vision is a central bank that produces a national currency. If only central bankers would follow the advice emanating from the wags in Washington, they could produce sound money that would rid the world of the volatile hot-money flows that have plagued the emerging markets for the past two years.

Like the rest of the Rubin-Summers spin, their embrace of free-market economics rings hollow. Friedrich von Hayek was a true free-market economist. In his 1976 book, *Choice in Currency: A Way to Stop Inflation*, this Nobelist concluded that the discretionary monetary policies followed by central banks were a type of central planning with the same disadvantages as, say, the central planning of agricultural production. Hayek favored a competitive currency regime in which private parties would be free to use any currencies they wished, whether they were issued by government-owned central banks or private banks.

Not everyone is listening to Rubin and Summers. In January President Carlos Menem suggested that Argentina dump its central bank and stop issuing pesos while making all other currencies legal tender in Argentina. Such a competitive currency regime would eliminate currency risk, reduce interest rates and stimulate economic growth. Let's hope Menem succeeds and that others follow his lead. That would make the world less safe for central planners but safer for the rest of us. ■

Steve H. Hanke is a professor of Applied Economics at The Johns Hopkins University in Baltimore.

Texas Instruments bet the ranch on a little chip used in cellular phones and won big. Next stop: the Internet.

Signal success

By Daniel Fisher

THE CAREER OF EVERY CHIEF EXECUTIVE includes at least one make-or-break decision. For Thomas Engibous, who has been running Dallas-based Texas Instruments for the past three years, the moment has already come: his decision to focus on digital signal processors, special-purpose microprocessors that handle communication tasks (FORBES, *Apr. 7, 1997*). Engibous, 46, dumped TI's long-standing defense electronics business and then its memory-chip division.

That move looks awfully smart now. DSPs are essential ingredients in cellular phones. They capture your voice, strip out 60 kilobits of extraneous data a second and send just the right bits on through the ether. Sales of cellular phones—more than half of them equipped with TI chips—increased 51%, to 163 million units, last year from 1997.

Bolstered by 50% gross margins on DSP chips, TI's net income climbed to $189 million in the fourth quarter of 1998 from a $285 million loss the year before. TI shares have doubled over the past five months, to a recent $100. Says Engibous: "DSPs are the engines of the digital age."

But now the tough question: Will the old TI curse return? This is the company that invented the integrated circuit in 1958 and dominated the semiconductor business as late as 1985, only to lose its lead as powerful competitors like Intel and Samsung poured into markets TI pioneered. What's to prevent history from repeating itself?

One big thing: the complexity of DSPs, which can crunch 2.5 billion computations per second. That makes DSP designs difficult to clone. DSP technology is still evolving at a rapid clip, requiring huge research expenditures. That means TI's market leadership gives it a powerful cost advantage.

"We've been spending as much on R&D as the next-largest competitor is generating in DSP revenue," says Richard Templeton, president of TI's semiconductor division. "When people start saying, 'We're going to compete with TI,' the best you get is they're trying to pick off one price point or product segment."

TI has a virtual lock on the business of supplying DSPs to Nokia, the largest cellular phone maker, which has a 23% market share. Even as competitors like IBM clone some of TI's bestselling chips, TI is developing new ones that give Nokia's phones lower power consum tion, better sound quality and new features such as voi dialing.

"By the time somebody tries to [copy] what we d with the last generation, we're working on the next ge eration," says Harry Davoody, vice president in char of mixed-signal DSP products at TI.

Still, those 50% margins will draw in competito

Chief Executive Tom Engibous has engineered a turnaround at Texas Instruments by focusing on digital signal processors, vital to electronic communications.

JAMES MCGOON

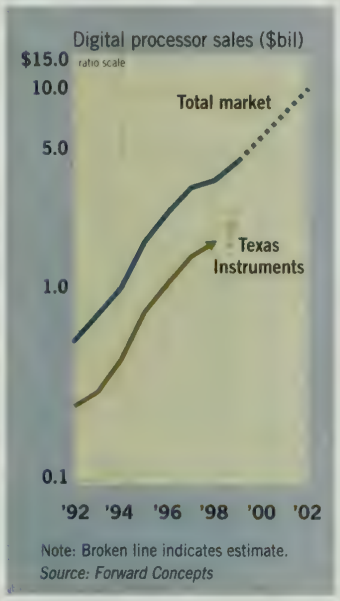
Motorola and Lucent Technologies last year agreed to split research and development expenses for new DSP designs. More recently, Analog Devices and Intel formed a similar alliance. Templeton dismisses such linkups as "desperate acts," however, in the face of TI's cost and technology advantage. TI's share of the DSP market rose to 45% last year from 38% in 1997, while Lucent fell three points, to 28%, and Motorola remained flat at 12%, according to market researchers IC Insights.

The others "didn't come early, didn't spot it," Templeton says. "In this market, it's very, very difficult to be a late arriver."

Market analyst William Strauss of Forward Concepts figures that cellular phones and other current uses for DSPs will lead the market to expand at a 32% annual rate through 2003, meaning that TI has the dominant share of what could be the fastest-growing semiconductor business.

Rising digital tide

Texas Instruments has been increasing its share of the digital signal processor market, which is expected to grow to more than $10 billion by the year 2002.



But TI is also cultivating new markets with potentially explosive growth—digital subscriber line, or DSL, services, for example. DSL is popular with telephone companies because it's simple to install and can provide Internet access at up to 8 million bits a second over ordinary telephone lines, 150 times the speed of conventional analog modems. TI likes DSL because copper phone lines are noisy and require the intensive numbers-crunching ability of DSP chips to correct signals for errors.

SBC Communications and other phone companies already are installing DSL equipment. Dataquest analyst Gregory Sheppard says that personal computer makers such as Compaq Computer and Dell Computer will begin shipping PCs with DSL-capable modems in volume by the end of this year, driving sales of DSL modems as high as 2 million units in 1999 alone.

And an even bigger potential market looms on the horizon: telephones that use Internet protocol digital coding. Such phones—which are a mainstream version of Internet phones now available as PC software—would allow users to skip long distance charges. They'd also require millions of programmable DSPs, both to transmit the data and to allow phone companies to change the specifications of individual phones as protocols and a customer's service plan change.

"We'd like to put a programmable DSP at every end of every phone on earth," says Douglas Rasor, vice president of strategic marketing in TI's semiconductor group. "Two DSPs per phone call—I like the sound of that." ■

Cars are all about branding, and they are also about technology. Subaru had to blend the two to rescue its U.S. operation.

Reinventing the wheel

By Terril Yue Jones

EUGENE MOPSIK

THINK OF SUBARU and you probably think of Crocodile Dundee careening around the Australian outback leaping mud puddles and chasing wombats. Will that sell station wagons? Not by itself. Not too many years ago Subaru of America was on its deathbed. Its turnaround is a lesson on how a company can exploit its technology—in this case, all-wheel-drive—to create a brand image.

By 1993 Subaru, a subsidiary of giant Fuji Heavy Industries, was selling only 104,000 cars a year in the U.S., down 60% from the peak seven years earlier, and cumulative U.S. losses were nearly $1 billion. Its cars, with a few exceptions, had become unremarkable, even boring. Subaru had tried to craft a reputation as "inexpensive and built to stay that way," but the market wasn't buying.

"Subaru was competing head-up with Honda and Toyota, and so were Mazda, Mitsubishi, Nissan and the Koreans—we were fig ing to be number th on the shopping lis says George Muller, 5 a former operati manager and chief fina cial officer of Subaru America before beco ing its president in 19

"What are we go at?" Muller asked hi self. "What's our p sona?" The answer v a technology: all-whe drive. He yanked fro wheel-drive vehic from the lineup to c centrate on that.

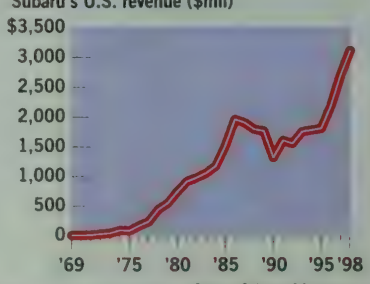
"We made a comm ment to sell only wheel-drive to differ tiate ourselves fr Toyota and Hond Muller recalls fr Subaru of America's a headquarters in Che Hill, N.J.

The decision was an obvious winner. Americans, used four-wheel-drive in big sport-util vehicles and pickups, might not go it in passenger cars. Dealers, especi in California and Florida, worried t consumers equated all-wheel capab ty with snow country only.

But Muller w ahead, playing Subaru's technol edge: its compact wheel-drive unit, wh main component about the size of a gra fruit. The company p claimed that AWD m its cars grip the r tighter, not only in m snow and ice, but als rain or simply on di pavement. Subaru's A

Fewer cars, more cash

Subaru sold more cars in the U.S. in 1986 than in 1998, but by repositioning itself as a more upscale brand, it has raised revenue per vehicle from $10,700 in 1986 to $21,000 last year



Source: Subaru of America.

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is always engaged, transferring power from wheels that begin to spin to those that have better traction. You get the traction of an SUV four-wheeler without the rollover risk. Early ads went after Jeep Cherokee and Ford Explorer, claiming Subaru had better handling.

As sales picked up, to 148,000 cars in 1998, Muller edged Subaru of America up the scale in luxury and in price. The smaller Imprezas, imported from Japan, go for $16,000 to $20,000, and Legacys, made in Lafayette, Ind., from $17,000 up to $27,000 for a fully loaded Outback Limited. That's still well below the $32,000 to $49,000 you pay for other four-wheel-drive station wagons, like Audi's A4 Avant and Mercedes' E-class. But the Outback is classy enough to compete with Volvos.

The public took notice of a moderately priced all-weather vehicle with almost the same cargo capacity as an SUV but better handling and comfort. The Paul Hogan/Crocodile Dundee ads, which began in 1996, added an irreverent edge to Subaru's stolid image. The category Subaru pioneered—the car-based SUV hybrid—is being imitated by such manufacturers as Lexus, BMW, Ford and Cadillac.

Many vehicle ideas emanate from Subaru of America, such as the original designs for the Legacy Outback and the somewhat taller Forester. U.S. sales account for about 35% of Subaru's worldwide total. Muller has influence over what is made or sold in the U.S., but Tokyo ultimately calls the shots.

And sometimes they're not the right ones. They should, for example, have put six cylinders into the 2000 Legacy instead of four; with gasoline cheap, Americans are clamoring for more power. Subaru isn't even marketing here all the models it has in Japan. The turbo-charged Impreza 22B, for instance, has a cult following in Europe, where gray-market imports sell for up to $70,000.

A final irony: Fuji and Muller have done such a good job of differentiating Subaru that Fuji would make a plum acquisition or merger target. Its product lineup overlaps with no other one in the world. Nothing's happening now, but smart and wealthy manufacturers should take notice. ■

Think men and women are from different planets? In the workplace there's another skirmish going on: between young women and older women.

Generational warfare

By Katarzyna Moreno and Morgan Murphy

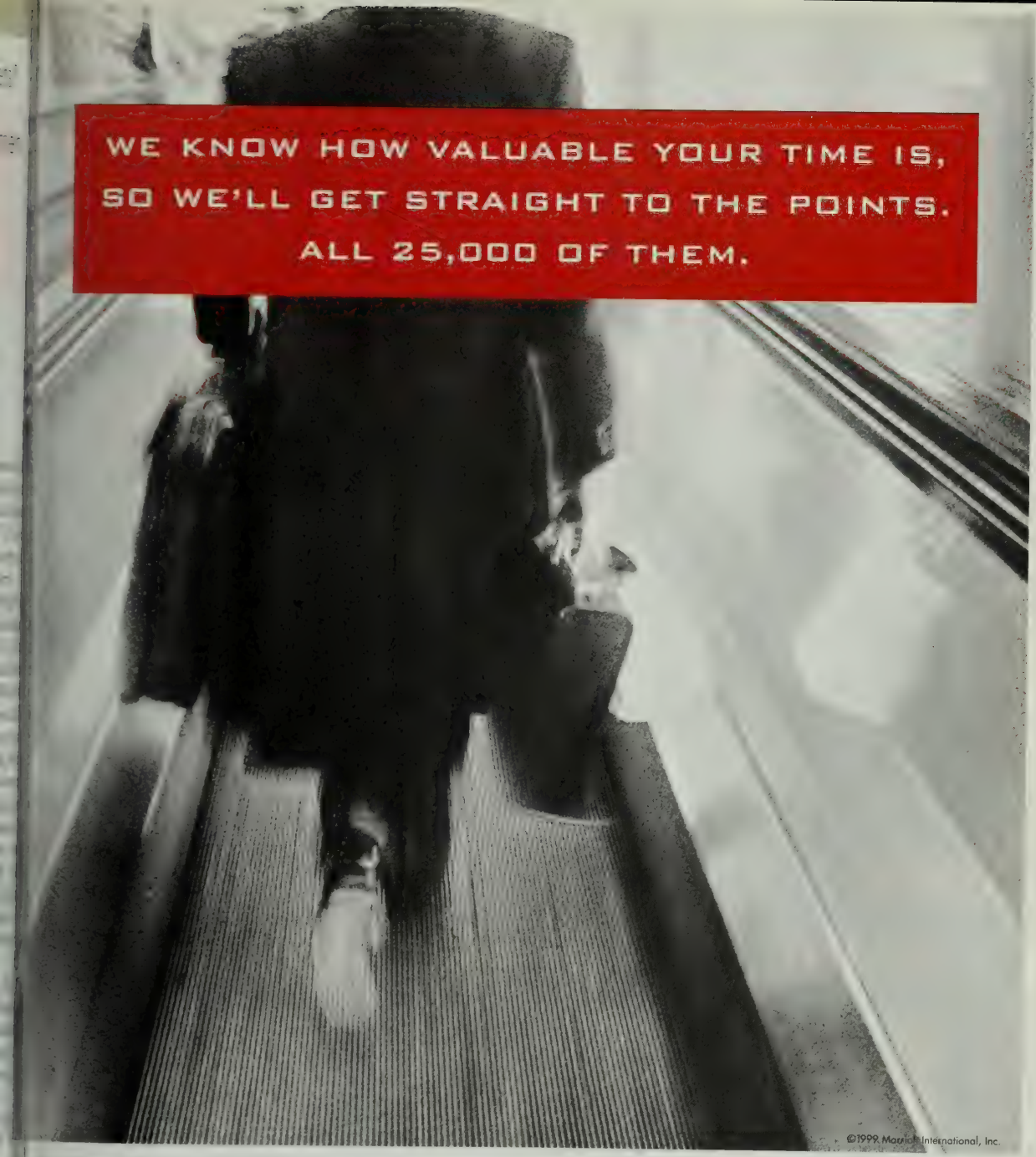
IN DECEMBER 1996 FORBES gathered 20 female executives to pose for our cover photograph about the women of Silicon Valley. Katrina Garnett, president of CrossWorlds Software, still remembers something odd about the get-together. "The photo shoot took the whole day and we were all in one room and yet none of the women talked to each other or exchanged business cards," she says.

Why? "Because women are competitive and catty," Garnett concluded.

Ouch! You've heard a lot about the war between the sexes, sexual harassment and the glass ceiling. There is another war going on in corporate America—the war of the sisters.

This is not just women fighting women. After talking to a hundred women, we found that much of the friction takes place between different generations: the older, trailblazing women who had to sacrifice family for careers and the younger, want-it-all-now women. "Different generations of women in the workplace have very different value systems—which leads to a lot of conflicts between them," says Albert Bernstein, a Vancouver, Wash. clinical psychologist and management consultant.

The biggest source of friction: balancing career and family. Fifty years ago only 20% of all married women worked. Many women of that generation felt that to move up the ladder they had to neglect or not have families. I



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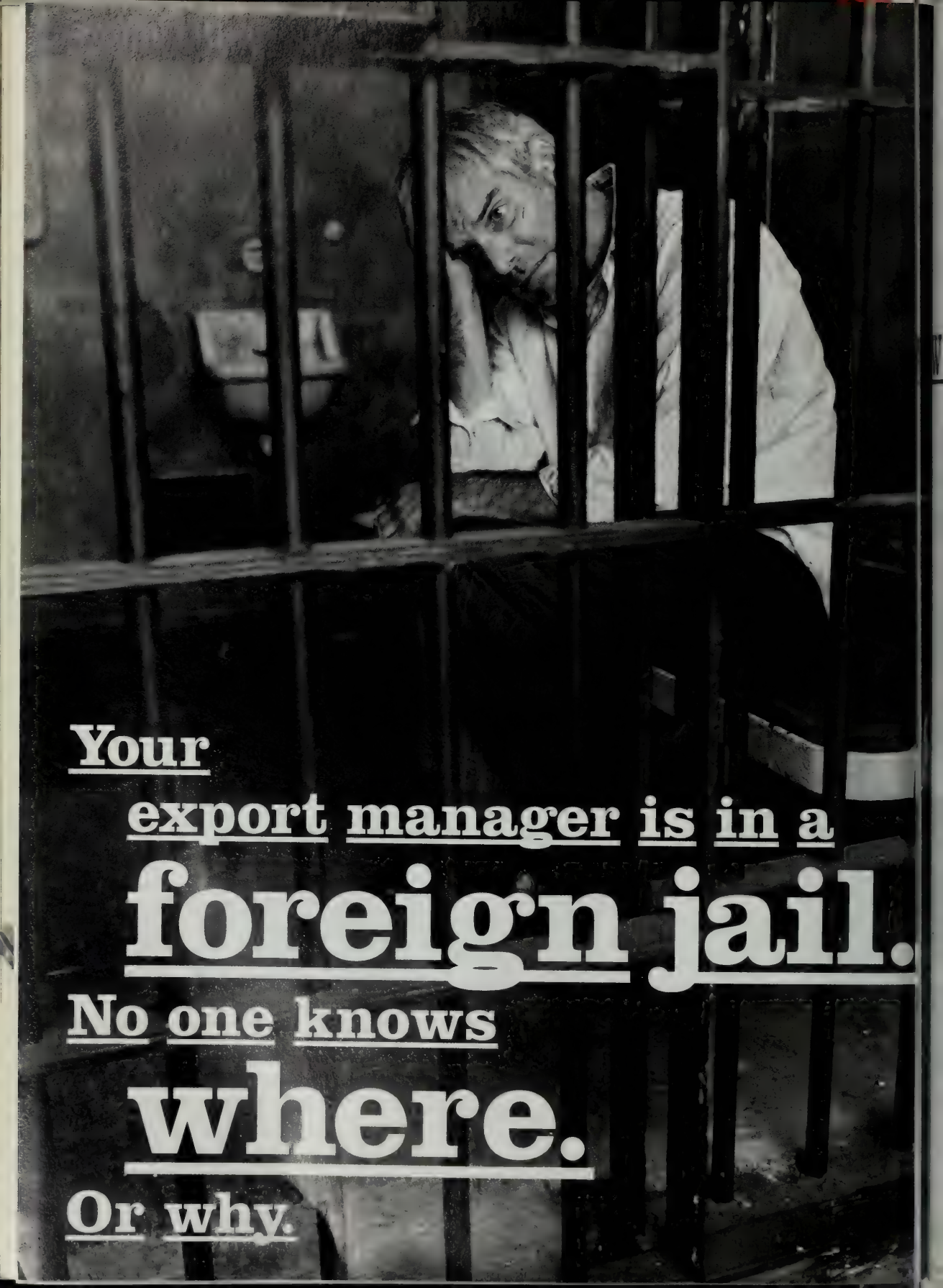
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business success meant working killer hours and accepting any assignment, so be it. They don't necessarily want younger women to sacrifice their families—but it would sure be nice if they displayed some of the same discipline.

Today 60% of married women work. And the younger generation is looking to balance work and family. They don't always accept the trade-offs made by the older women.

In the workplace this gets played out in sometimes unpleasant confrontations. When, four years ago, a 39-year-old consultant became pregnant with her third child, a female senior partner commented with disgust: "And why would you want to do *that?*" The senior partner was ten years older, single and childless.

Says the consultant: "It hurts more when you hear it from a woman. She must have been thinking: It might have been me."

Some younger women say the older model is just too alien for them to understand. Dana Hagendorf, 26, a manager in global communications at PricewaterhouseCoopers, had a female boss who didn't have children. "I didn't talk with her that much because I was looking for a role model who had made the balance," she says.

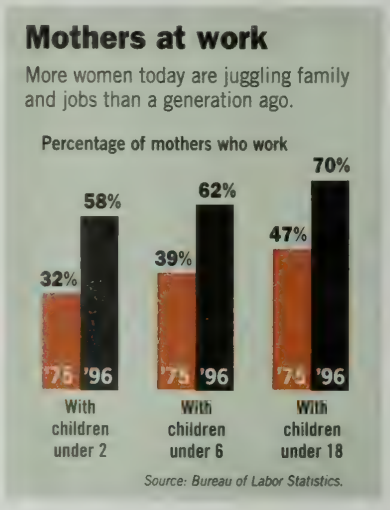
Don't men have similar tensions? Up to a point, yes. But they have yet to match women in their contribution to child rearing. Another difference is that high-ranking women are still relatively new in the workplace.

Take mentoring. Corporations talk a lot about the need for it, yet between older and younger women it can turn into a reluctant dance. Some older successful women want nothing to do with it. After all, they've clawed their way up the ladder in male-dominated organizations and "don't want to share their singular role as the only woman," says Martha Mertz, 55, a commercial real estate developer in Michigan.

When Karen Denardo, 24, landed an internship in the marketing department of Microsoft as a Wharton undergraduate a couple of years ago, she was excited that she would be reporting to a woman. But her boss kept her at arm's length from day one and gave all the plum assignments to a male intern. Lacking any other reasons to explain her boss' behavior, Denardo concludes, "I got the sense that some women would rather be the *only* woman."

Mertz calls it the Queen Bee phenomenon: "I am the only one at the top, and isn't it nice up here?" Discouraged by the lack of female networking, Mertz founded Athena, a national organization that promotes mentoring among women.

Queen Bee is only part of the explanation, though. To this day, says Catalyst, a women's research group in New York, senior women worry that spending too much time with other women will only hurt their careers vis-à-vis the men who run the company. That reaction isn't surprising. After all, in the 1960s there were 5 million male executives but only 1 million female executives. Men were



powerful and thus could offer more career advancement. That isn't much different today, either.

Indeed, some women worry so much about the appearance of female bonding that when they do feel a need for it, they keep it strictly private.

Listen to Linda Wassong, 45, a former executive at Condé Nast: "My female boss would call me into her office, put her head down, turn her hair upside down and start brushing it in front of me to make it fuller. She would be going to a meeting 'with the boys,' as she would say. And she would rehearse with me what she w going to say.

"But when the door was open, s ignored me. In front of men she pr tended to be a tower of strength." T result of these kinds of encounte hurt feelings between two women.

The feminist author Naomi W has written, "It is not men wi power who behave, generally, in in vidualistic, defensively competiti ways; it's the few women with pow who tend to do so."

So what do the older women thi of all this? Marcia Sterling, 55, vi president of business development Autodesk, concedes that the first ge eration of women bosses had to bre so much new ground that they got little obsessive-compulsive." Sa Sterling, "I think we give a messag to the young generation that's t harsh. We often tell them you have give up everything, put your job fir and family second."

To the trailblazers, the young generation's plea for balance som times seems like just a disguise f slothfulness. "We came in with th attitude of making good and pavi the way, so we were diligent," sa Marianne Jennings, 45, an ethics pr fessor at Arizona State Universit "Now that we've paved the road an equality has spoken, women have th right to goof off, I guess."

This type of dispute was playin out at a West Coast law firm whe Bernstein, the psychologist and co sultant, was called in to mediat Four younger women viewed the boss, a senior partner in her 50s, as relic, someone who put up wit doing more work than her ma counterparts for less money. The complained bitterly about salarie promotions and the numbers hours the female boss expected the to work. The boss' view? She consid ered the younger women lazy an selfish, unconcerned about the wel being of the law firm.

Bernstein's assessment: "In th past women were taught to put oth peoples' needs—in this case the employers' needs—ahead of the own needs. But younger women no feel it's okay to put their needs first.

The generational friction is likely t continue. ■

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Could technology give our schools better quality control? Would that make them more responsive

Instant feedback in the classroom

By Bruce Upbin

Read, quiz, repeat. A winning formula at Chase Elementary in Chicago.

PETER DRUCKER SAYS the U.S. education system is overadministered and undermanaged. Meaning: There are a lot of bureaucrats, but they don't apply sound management techniques to producing the output they are hired to produce.

A change may be afoot, thanks in part to software technology. The technology just might make schools better at quality control—knowing which instructional techniques work and when.

"[Schools] have been pretty much flying by the seat of their pants, doing what feels right or what some guru or academician said was right," says John Stevens, director of the Texas Business & Education Coalition.

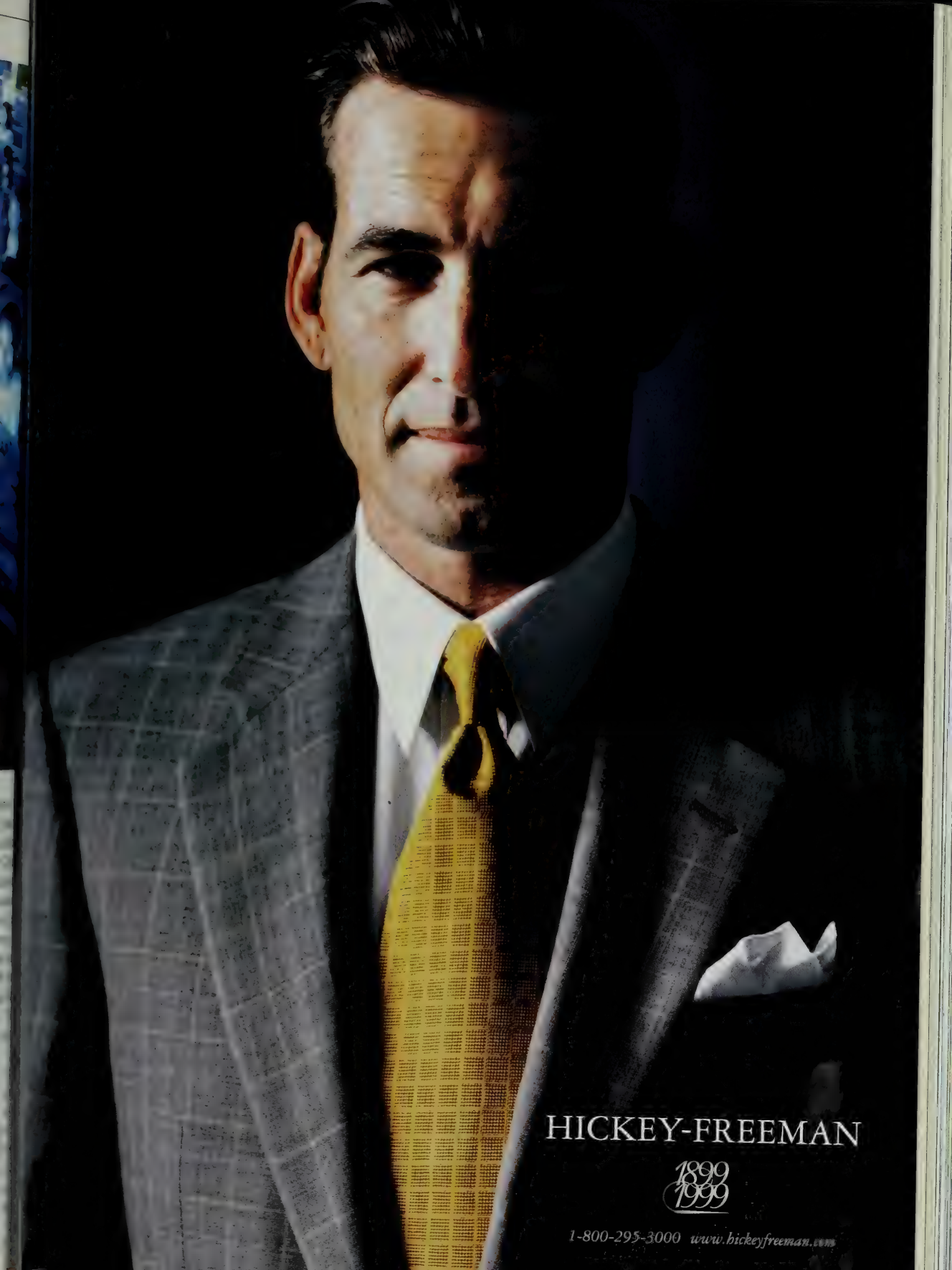
The new technology is coming from outfits like Advantage Learning Systems, a small but fast-growing software company in Wisconsin Rapids, Wis. that sells instructional aids and computerized quizzes to monitor their results.

Teacher Judith Paul and her husband, Terrance, a lawyer and education researcher, founded ALS in 1986. Last year the firm netted $13 million on $55 million in sales. That handsome margin—and the company's 61% annual growth rate—makes it a favorite on Wall Street, with a stunning $1.3 billion market capitalization.

ALS says it has trained 100,000 teachers to use its computer-based reading quizzes and reports, which are in use in 30% of U.S. and Canadian elementary schools. One customer, Salmon P. Chase Elementary School, is in a tough, almost entirely Spanish-speaking, Chicago neighborhood, yet 40 or so kids come to school an hour early each day just to take one of the company's Accelerated Reader computer quizzes. Chase began using the software in earnest two years ago, shortly after the school was put on the city's probation list for chronically bad reading scores.

Accelerated Reader is simple stuff and costs as little as $400. Kids read one of 19,000 offered books and take a short comprehension quiz. The more quizzes they pass, the more points they earn.

Every schoolkid since the late 1950s probably remembers a self-study reader program just like this, from SRA. All that's really different in the digital age is the feedback loop. Students see their scores immediately. Teachers get weekly reports that let them pinpoint which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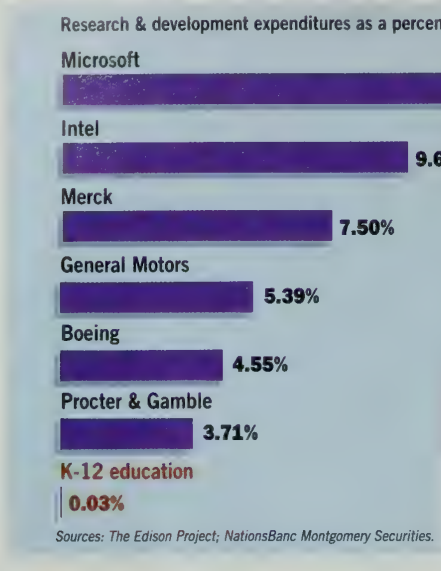
Soapsuds over social studies

It's a wonder there's any innovation in education at all, given how little is spent on R&D.



Sources: The Edison Project; NationsBanc Montgomery Securities.

Educated consumers?

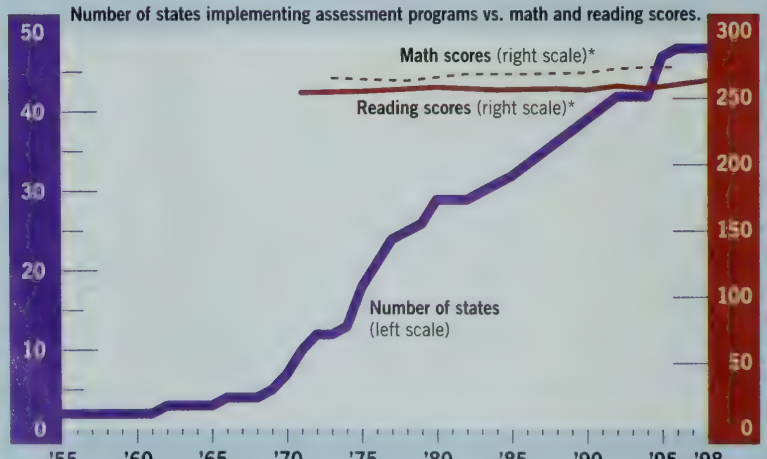
Parents fall short as school critics.

Percent of parents saying they know a lot about	1998	1999
How child compares with others internationally	7%	5%
How child compares with others in the U.S.	15	15
How child compares with others in his or her state	23	24
How child compares with others in his or her grade	45	52
Qualifications of teachers	24	24
How school ranks in district	35	39
Curriculum and academic goals	55	59

Source: Public Agenda.

Testing, testing...

Flatlining in the era of No. 2 pencils.



*Test scores for 13-year-olds on National Assessment of Educational Progress. Scores are on a scale of 0 to 500.

Sources: Department of Education; Office of Technology Assessment; Council of Chief State School Officers.

students are failing too many quizzes—signaling a need for one-on-one tutoring—or which are ready for some harder stuff. Parents see weekly reports, too.

General Electric would be nowhere in quality control if not for quick and constant measurement of output. Maybe the educational system should take a page or two from the business-management books.

Check out a book from the library, read it through, take an Accelerated Reader quiz, get a score, repeat. It sounds like factory work, but Chase principal Olga La Luz swears by the system. She promised to kiss a pig the end of the first year, if the ch dren together racked up 4,0 points. They got 5,015—and in t process boosted reading scores 43 enough to get Chase off probatio La Luz displays on her bookshel photo of her kissing that pig.

Measuring on a computer h much and how well students a reading is relatively easy, but wh about testing problem-solving skil This is trickier, but no less importa

Turn-of-the-century Harvard U versity once required applicants perform, under teacher supervisio several of 40 physics experiments a submit a record their observatio and measuremen Such performanc based exams have big advantage ov multiple choic They go beyo whether studen can regurgitate set of facts on certain day assess their know how. They gi "teaching to t test" a good name.

Performance assessment can expensive, though. Only 14 stat currently force students to perfor some kind of task besides essay wr ing. California dumped its system 1994. In 1995, after spending thr years and $1.5 million, Wiscons ended its program.

This is a shame. "The whole poi of total quality management is n flinching from measuring what's ha to measure. [Schools] have histo cally been in the business of meas ing what's easier to measure and n measuring what's most valuable us," says Grant Wiggins, preside and research director of the Cent on Learning, Assessment & Scho Structure in Pennington, N.J.

Solution: technology. Eleven ye ago Ronald Stevens, a professor microbiology and immunology the UCLA School of Medicine, g fed up trying to test his medical st dents' diagnostic skills with pap and pencil. He created a comput based simulation of patients in n

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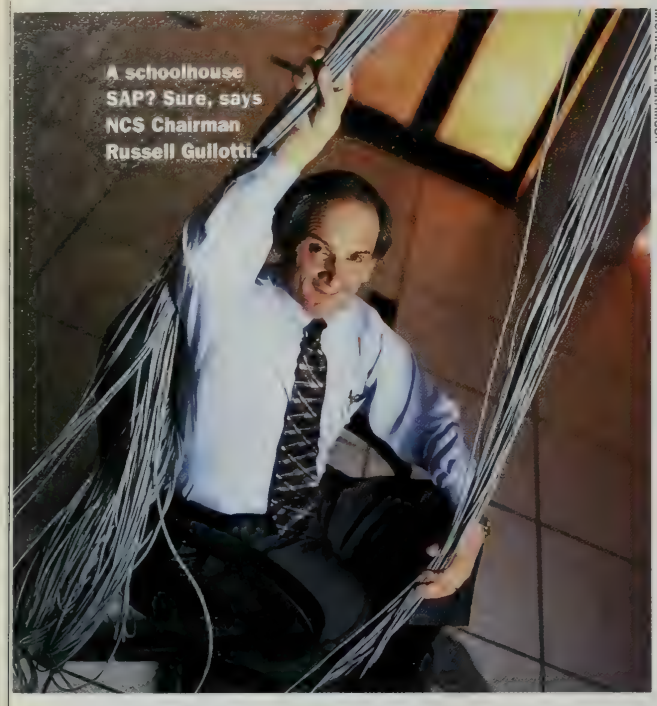

A schoolhouse SAP? Sure, says NCS Chairman Russell Gullotti.

MICHAEL L. ABRAMSON

of diagnosis, called Immex. Students select from dozens of lab tests and procedures and consult with simulated specialists as they refine their conclusions.

The software tracks and times students' moves, creating a maplike diagram showing how efficiently they reach their conclusions. Right now a teacher must score the map by hand, but Stevens is close to finishing a piece of pattern-recognition software that electronically scores those maps. In 1995 Stevens won a $2 million grant from the National Science Foundation to train high school teachers to create their own Immex simulations. It is now used at 25 high schools in the Los Angeles area.

Students in Joycelin Palacio-Cayetano's sophomore biology class at Polytechnic High School in Sun Valley, Calif. used Immex to investigate how genetic mutations occur. After a year on it, her students were twice as likely to scrutinize hard data than to guess, something they did quite frequently at first.

Ideally, better tests make better learners, but testing is only part of an effective feedback loop. What you do with the data is just as important. The state of recordkeeping in most schools is corporate America minus easily five to ten years. Perhaps the "killer app" for improving learning may turn out to be the lowly database.

With a $2 million grant from IBM, Florida's Broward County schools, the fifth-largest district in the U.S., became the first to build a searchable data warehouse, in 1996. Into it went information on test scores, classes taken, schedules, grades, attendance, demographics and, soon, bus routes.

Last year a Broward math teacher could not understand why his brightest eighth-grade students were scoring merely average on their Stanford standardized tests.

Before the district put in a searchable database, he would have had to navigate scores of screens to see how each student scored in each test subcategory.

Instead he simply set up a few queries to generate an instant report. It turned out his students were flunking graph-plotting. He is correcting the problem.

The company that stands to gain most from a data-driven school is National Computer Systems in Eden Prairie, Minn. For decades, NCS has been known for making the scanners that score standardized tests and being the largest commercial processor of student tests, scoring 39 million tests annually.

The "killer app" for improving learning, which everyone thought would be the Internet, may actually turn out to be the database.

Under Chief Executive Russe Gullotti, NCS has wakened to ne opportunities. Gullotti, a compac earthy Bostonian, arrived in 199 after having run Digital Equipment 40,000-strong computer servic division. He sold off a financial se vices arm and began acquiring sma school-software companies, piecin together what is now a soup-to-nu school-automation-software packag Software sales and services revenu have risen from $258 million in 199 to $493 million last year, on whic NCS earned $32 million. The comp ny's products are entering 1,500 ne schools every quarter.

Gullotti has positioned NCS as th K-12 market's equivalent of Germa enterprise-software giant SAP. Schoo that once took weeks to schedule th following year's classes can do the jo in ten minutes on NCS' software.

Its curriculum-management sof ware matches classroom lessons t state standards and can generate te items for on-the-fly diagnost assessment.

Later this year NCS will add a We module to allow parents free access t their child's homework assignmen for the week ahead, as well as updat on skipped classes, tardies an whether Johnny got into a fistfight i the parking lot.

Will it save taxpayers any mone Gullotti diplomatically sidesteps th question. "Installing enterprise sof ware in schools is more about quali of service—good, timely data prope ly reported—than it is about repla ing staff or getting a return on inves ment," he explains.

NCS' mantra: If you can't measu it, you can't manage it. Just as hosp tals are mining past patient outcom to determine the most efficient trea ment, NCS' software could com school data to determine the ide combination of coursework, teache tests and homework assignmen to achieve a superior education outcome.

Testing, done badly, can lead t perverse outcomes, as the story o page 74 makes clear. Done right, should improve output in the $30 billion K-12 education industry.

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Educational accountability is all well and good—unless the educators monkey with the accounts.

Can you trust the test scores?

By Dan Seligman

IN EDUCATION THIS YEAR the political establishment's mantra is "accountability." That accountability is supposed to come in part from new institutions, like charter schools, and in part by measuring the performance of the familiar old institutions.

Giving a huge lift to this movement has been Texas Governor George W. Bush, who made school accountability the foundation idea of his first term and got reelected last fall in a 69% landslide. According to *Education Week*, 32 states now have some version of accountability, but drumbeating for the idea seems to have been loudest in Texas, Florida (where George's brother Jeb is now in charge), North Carolina, Louisiana, Kentucky and Tennessee. Also getting into the act has been President Clinton, whose State of the Union laundry list included some kind of federal shirts or socks (details remain unclear) to dramatize school accountability.

Core idea: Accountability means that schools with good test scores get rewarded. That means more money for school buildings and furnishings; also for the teachers and principals, whose career options get expanded every time the local papers print their schools' high scores and rankings. Schools with bad test scores get punished by firings, layoffs, maybe even state takeovers of the failing schools and public disgrace for the educators who failed. So the folks in charge of delivering the product (academic achievement) have powerful incentives to perform effectively, and, as we all know from economics textbooks, incentives make a difference.

But do incentives give you more of what you want? Possibly worth

MICHELLE CHANG

recalling in this context are certain other high-level government initiatives to make the folks at ground level accountable. In the Vietnam War the efforts notoriously featured the Pentagon demanding enemy body counts from the troops in the field, which resulted in reports hugely inflated by noncombatant deaths. In the realm of civil rights, the logic of numbers-based accountability led to race and sex quotas. Similar perversities are discernible in educational accountability.

They are not always discernible in the national media, which have generally gone gaga over George W. Bush's record in Texas. "His secret elixir is education," said a headline over a long, gushing *Time* magazine story in November, which dealt lengthily with the rising proportion of children who had been passing the Texas Assessment of Academic Skills (a battery of reading, writing and math tests).

The Texas media have done far less gushing about the TAAS scores, which determine whether schools will rated "exemplary," "recognized "acceptable," or—big trouble "low-performing." Newspape around the state have recent reported hints of widespread chea ing on the test, with suspicious er sures now being investigated Houston, Dallas and elsewher More heavily emphasized by th Texas media is the fact that, with much riding on TAAS, a lot of clas rooms are now dominated by "teac ing to the test"—drilling kids ov and over in the skills measured the test while cutting back on ever thing else. The test heavily emph sizes "the basics," which means th drilling is arguably of some value kids who never mastered the mult plication tables but a bit of a bo for a lot of other kids. A long repo in the *Fort Worth Star-Telegram* year ago left you thinking that th endless drills are also a bore to th teachers. But Mike A. Moses, hea of the Texas Education Agency, unrepentant about teaching to th test, which he encourages. The sta now makes available test-takin "study guides," designed to he students get the biggest possib test-score bang for whatever achiev ment bucks they bring to the table

One large difficulty built into edu cational accountability is a stubbor fact unmentionable by politician There are differences not only i schools' teaching ability but in kid learning ability. Schools with high-i kids, whose parents include a lot professionals, are virtually guarantee to score higher than schools wit mostly poor inner-city children—n matter what their respective schoo do. So we have this thorny questio In holding schools accountable f their students' achievement, shoul we make some kind of "adjustment to reflect student background?

Nobody has a good answer to th question. If you make the adjus ment, you are in effect saying th you expect certain kinds of kids t do poorly on the test—which nobo wants to say. But if you don't mak some kind of adjustment, you a plainly being unfair to a lot of teach ers and principals. So what happens

This brings us to a second prob

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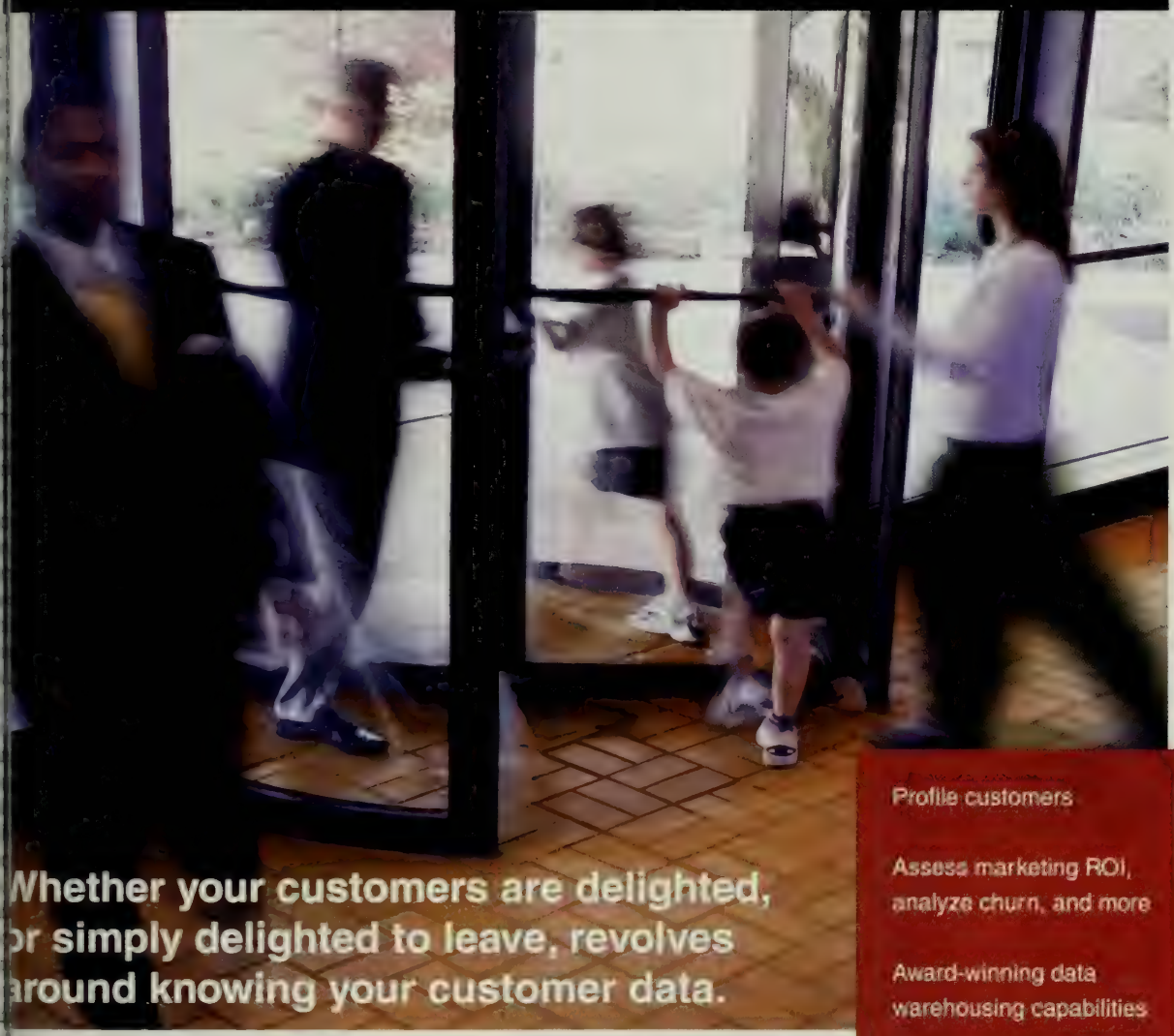

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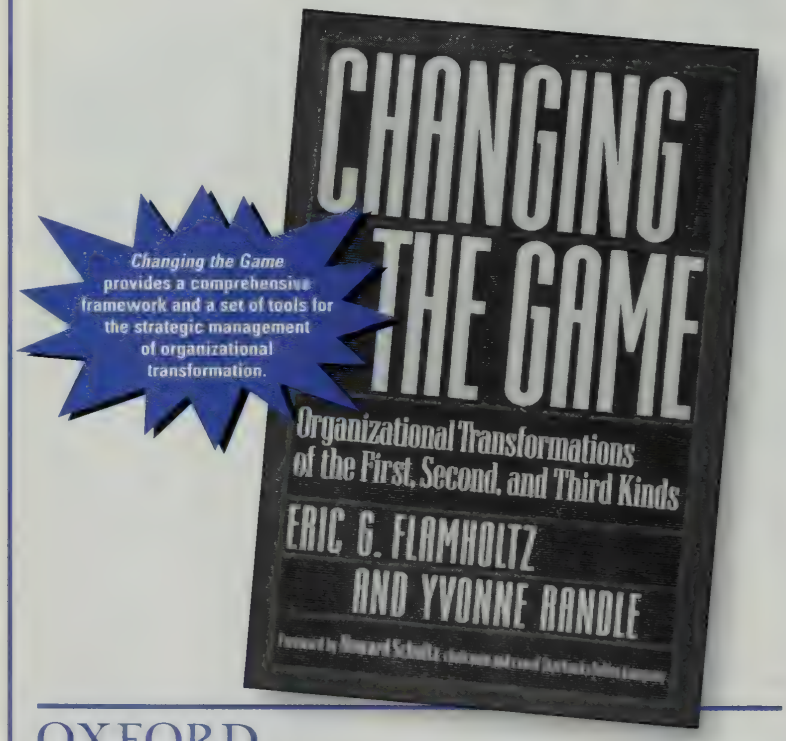

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lem: What happens is that a lot poor (in both senses) students a simply kept out of the accountabili system. In recent years, close to on quarter of those in the teste grades—the third through the eight and the tenth—have been exclude Students in "special education"— term covering the classes for kids wit learning disabilities or severe physic or mental handicaps—have not bee required to take the test. Also outsi the accountability circle have bee kids judged to have "limited Englis proficiency" and some kids who hav moved from one school to anoth during the year.

All of which sounds perfectly na ural until you focus on this fact: Dec sions about which kids are placed i these exempt categories are judgmen calls, and the judgments get made by administrators, who have huge stakes in the test scores. And, you will be not stunned to learn, it has occurred to numerous administrators that their school average scores will rise if they pu more of the poor performers in, sa "special ed."

One school exempted 75 of its (mostly Hispanic) students from the test

Evidently expecting to find snak oil, the Texas Governor's Busines Council last year commissioned study on exemptions in school dis tricts. Suspicions were essentially con firmed. An analysis by education con sultant Darvin Winick and Universit of Houston Professor Laurence A Toenjes showed that there were hug variations from one school to anothe in the proportions of students exempt ed—and the differences could not b explained by differences in poverty c ethnicity. Clearly, some schools wer cheating the system. The study cite two schools that had exempted mor than half their students, enabling ther to attain "exemplary" ratings. Anoth er school exempted 75% of its (mostl Hispanic) students and got a "recog nized" rating. (Students categorized a Spanish-speaking take a different tes in their own language—but thes test results have been outside th

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accountability system.)

Accountability in Texas will get a new look this spring. Responding to what is perceived as widespread racketeering in exemptions, the legislature and Governor Bush have supported legislation largely ending the exemption for special education. This new deal will be reflected for the first time in the results released this spring, and the state is braced for a broad sell-off in TAAS scores. (The scores will probably drop in the years ahead, as students taking the Spanish-language test are added to the accountability system.)

The new system will surely give Texans a better idea of how well their students are doing. But it elimina the safety valve that up to now l been available to the teachers a administrators being held accountal for the academic achievements deprived children.

In Texas, and perhaps a lot of oth places, accountability's problems a just beginning. ■

At 70 Citizens Utilities Chairman Leonard Tow is reinventing himself as a fiber czar.

Second wind

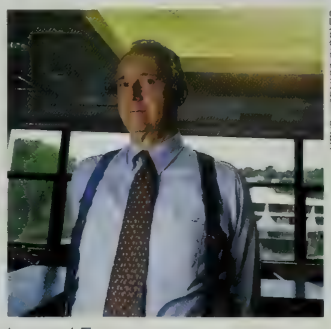
By Caroline Waxler

MENTION THE NAME Leonard Tow and you often get guffaws from Wall Street executives and moans from shareholders. Tow was the guy who paid himself over $15 million in compensation in 1992, a year in which the two publicly held companies he ran, Citizens Utilities and Century Communications, had combined revenues of $893 million and profits of only $49 million. Shareholder lawsuits about this largesse have long been settled, but the companies have never fully recovered from the image problem. Together, Citizens and Century have been an odd mix of gas, telephone, electric, cable and water operations.

But look who's laughing now. At age 70 Leonard Tow is making a comeback. He's reinventing himself as a telecom magnate, sounding more like a man running a company with a ".com" at the end of its name than a crusty septuagenarian who grew up above the family discount store in Brooklyn.

"The phone companies are defending their territory the same way Custer did," he says. Most phone companies intend to deliver medium bandwidth to your home with "digital subscriber loop" technology over pairs of ancient copper wires. "That's a fix with limited potential—it can't match the accuracy of new competitive networks," he says. Tow aims to have the phone companies in his empire eventually deliver high bandwidth over fiber-optic lines.

How is Tow going to pay for this costly upgrade? By horse-trading. Last year he sold his cellular properties to buyout firm CCW Acquisition group for $2 billion. Now he's trying to sell cable TV provider Century for perhaps $5 billion. Likely buyer: Microsoft billionaire Paul Allen. Says Tow, "I've crossed the bridge. If I can get the right price, I'll do it."



CLAUDIO EDINGER/ SABA

Leonard Tow
Look who's smiling now.

A scholarship student at Brooklyn College, Tow went on to Columbia and then to work for Irving Kahn at cable outfit Teleprompter, where he eventually was put in charge of acquisitions. "Irving introduced me to the idea of broadband. He was a dreamer who envisioned a nation covered via cable," says Tow.

Tow had his own dreams. Out of a job when Jack Kent Cooke bought Teleprompter in 1973, Tow wrote a business plan on his dining room table for what would become Century Communications. He partnered with Sentry Insurance of Wisconsin to start the company. Each side put up $11,000. Tow borrowed heavily to build up his New Canaan, Conn.-based operation.

Then, in 1989, Tow paid $4 million for a 2% stake in Stamfor Conn.-based Citizens Utilitie Where others saw only gas a electric operations, Tow focus on the company's local telepho business, which served 476,0 customers.

To the local telephone busine Tow added long distance servic and bought into a Vancouver-bas outfit called Electric Lightwa which operates a fiber-optic data ne work expected to generate $150 m lion of revenues this year. It's al one of the country's top Intern backbone providers.

In expanding h phone business To has employed th same rural expa sion strategy as l once did in ga water and electri He buys up region telcos—mostly fan ily-run, cuts ove head by up to 20 and then laye on new servic like long distanc caller ID and ca waiting. Now he got 983,000 loc phone customers. Tow also wants t start a private broadband compar to give these customers video an data transmission—services Tow sa traditional phone companies don grasp the need for.

Next step: Tow this year plans t spin off Citizens' telco business t shareholders as a separate publi entity with nearly $1 billion in re enues and, presumably, a hig price/earnings multiple. Says medi analyst Salvatore Muoio: "At 7 years old, Leonard is having a resu gence." No kidding. ■

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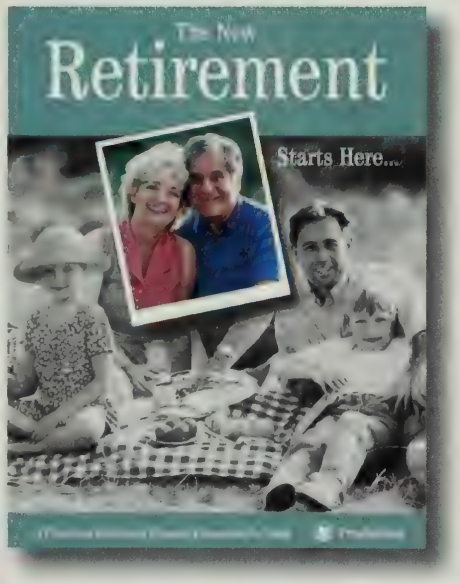

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FedEx is one good package deliverer.
But don't kid yourself that it's an Internet play.

Absolutely, positively overblown

By Kelly Barron

SHARES OF FDX CORP., the $16 billion (1998 revenues) parent of carrier Federal Express, have soared 42%, to $93, in the past three months. Is Memphis-based FedEx suddenly shipping 42% more fresh lobsters, legal documents and important packages?

Hardly. FedEx's domestic express shipments rose 5% in the second quarter ended Nov. 30, 1998 from a year ago, according to Merrill Lynch analyst Jeffrey Kauffman. International shipments increased 8%. Both are down from double-digit increases a year ago. But when it comes to Internet plays, fundamentals rarely get in the way of a good story.

The story here is this: If more of us sit in our bathrobes at home ordering from Amazon.com, Victoria's Secret and a thousand other Internet retail shopping sites, someone will clean up delivering the goodies. The story picked up momentum in December following a breathless *Barron's* article that quoted FDX Corp. Chairman Frederick W. Smith as saying: "Wall Street doesn't really begin to appreciate FedEx's role in this huge e-commerce revolution."

There's just one problem with the Internet retailing story: Delivering packages to residences, where most Internet consumer-shopping packages are sent, isn't a very profitable business for FedEx.

Picture an orange-and-purple FedEx truck tooling through downtown. In an hour, the truck can make 15 to 18 deliveries, picking up packages to take elsewhere as it makes its stops, many of which are in the same building. The average revenue per delivery in a commercial area is about $28, says Pittsburgh-based transportation consultant Satish Jindel.

But when the same truck heads to the suburbs, it makes all of 9 deliveries an hour and rarely picks up packages to be taken elsewhere. The result: The average revenue per delivery to a house is just $10.40, says Jindel.

The predominance of commercial deliveries at FedEx affords the company an 8% overall operating margin ("operating profit" meaning profit before depreciation, interest and taxes). But the home deliveries, which account for perhaps 10% of the company's volume, contribute nothing to operating net, says Jindel. The company barely breaks even on residential traffic after deducting for labor and other expenses—like the liability if someone swipes the package from your doorstep.

FedEx officials aren't too eager to boost the residential business. Asked how they'll retool to address Internet retailing, FDX's chief information officer, Dennis Jones, is circumspect.

"It's an issue that requires us to solve it," he says cryptically.

Most retail shoppers on the Internet don't want to fork over extra money to get a package overnight. Only 2% of Internet shoppers said they received packages ordered on-line via overnight delivery, according to a recent survey from Zona Research in Redwood City, Calif. Most of the packages ordered on-line were delivered by the United Parcel Service or the U.S. Postal Service.

FedEx sees more potential in its home territory—business-to-busines commerce. Its famed on-line trackin service aids this market. The futur here lies in helping customers wit supply chain management, inventor control, product assembly, distributio and billing. Technology will play large role in FedEx's success or fail ure—and in that of archrival UPS.

"The transportation companies tha invest in technology are going to d better than those that don't. But it' not going to cause someone who i going to buy one widget to buy two, says Theodore Scherck, president o the Atlanta-based Colography Group a global transportation consulting firm

Internet or no, Kauffman expect FedEx's earnings to fall 4% for fisc 1999, to $560 million. He blame slowing demand for domesti overnight packages, sluggish interna tional growth, pilot compensatio costs and contingency expenses.

Pricing the stock at 25 time expected 1999 earnings—a ratio 58 higher than FedEx's five-year aver age—Internet-addicted investors ar expecting more than FedEx may b able to deliver. ■

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All the world is merging. But there is such a thing as too much consolidation. Union Pacific Chairman Dick Davidson admits as much.

Back on track?

By Christopher Palmeri and Angela Arnold

UP Chairman Dick Davidson. **Down, not out.**

SO BAD WAS THE FALLOUT from Union Pacific's 1996 purchase of Southern Pacific—epic congestion, fatal accidents, missing cargo, lawsuits and $1 billion in lost business—that Congress is expected to consider legislation that could take away some of the railroad industry's freedom.

Richard Davidson does not want that to happen. Davidson, 57, a grizzled railroad veteran who began his career 39 years ago as a brakeman while he attended Washburn University, took over as chairman of Union Pacific Corp. two years ago. Davidson wants to fix his company's problems before Washington tries to.

First step: decentralize much of what was consolidated in the $5.4 billion Southern Pacific merger. Example:

Epic congestion, fatal accidents, missing cargo and lawsuits were some of the fallout from the merger.

Rather than have UP d patch all trains fro Omaha, as it had be moving toward befo the crisis, Davidson now putting more co trol out in the field. is creating joint dispatc ing centers with riv Burlington Northern Fort Worth, Tex., Kans City, Mo. and in S Bernardino, Calif.

In Houston, the ep center of the cris Union Pacific a Burlington Northe now jointly empl what amounts to a ra road traffic controll W.T. (Troy) Slinkar whose salary is paid h by each railroad, mak sure that no carrier h the upper hand on t more than 400 miles UP track that is eith jointly owned or which Burlingt Northern has a right use. Slinkard decid for instance, largely the basis of what car is moving, whose tra goes first over t tracks. Coal and grain are among t last to move. Dangerous chemica parts that need to get to manufact ing plants quickly and passenger trai take priority. "People," Slinkard jok "are a perishable commodity."

By delegating such critical traf routing to local operatives, Davids is going back to a decentraliz model that the railroad had utiliz until the 1990s. The railroad has be split into three regions and 22 lo offices, headed by a superintenden

"There used to be a constant fig

We didn't deliver any packages here, we just helped give him an address.

mith, UPS Atlantic District Manager
and Housing Works Intern

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998 United Parcel Service of America, Inc.

within the company," says Southern regional vice president Stephen Barkley. "The track maintenance engineers wanted to replace ties. The transportation people wanted to move trains." Now it's up to people like Barkley to make sure the maintenance, train scheduling and dispatching teams all work together. Rather than undertaking massive layoffs, the unpleasant result of most large mergers, Union Pacific hired 6,000 new employees last year to bring its head count to 53,000. UP plans to add several thousand more workers a year for the foreseeable future.

FORBES *(Dec. 18, 1995)* and other commentators attacked the Union Pacific/Southern Pacific merger for joining two railroads whose tracks were often parallel to each other. Davidson is turning that redundancy into an asset by running trains one-way in each direction over large stretches. That means cars don't get sidetracked.

Chemicals and passengers take priority. "People are a perishable commodity," a dispatcher jokes.

Thanks to changes like that, Union Pacific is running a lot more smoothly than last year. The railroad's average speed, as reported to the Association of American Railroads, was 25 miles an hour in mid-February. That's twice what it was at the depths of the crisis last year and ahead of what the nation's five other big railroads are reporting. An informal survey of two dozen Union Pacific customers still produced a lot of unhappy comments, but railroads, like airlines, rarely engender much goodwill, even when they are performing at their peak—which Union Pacific certainly is not.

After seeing its earnings slide to $432 million in 1997, UP reported an $86 million loss last year. Davidson figures it will be next year before the now-larger Union Pacific earns what it did in 1996—$904 million. Was it worth it? "The merger gave us a lot of opportunity in terms of how we route our traffic," Davidson says. "We lost our focus. But we're coming back."

Asia has half of the world's smokers and few of its kooky tort suits. So why aren't the cigarette companies raking it in over there?

Where there's smoke ...

By Andrew Tanzer

U.S. TOBACCO COMPANIES, the object of litigation and opprobrium at home, are hoping to find their growth abroad. It won't be easily found. Look at Asia, home to half of the billion smokers in the world.

The state-owned China National Tobacco Corp. produces as many cigarettes as the three leaders of the Western market—Philip Mor British American Tobacco and Nabisco—combined. China Natio employs 500,000 workers, opera hundreds of plants scattered efficiently around the country a keeps more than 10 million toba farmers employed. The state takes nearly $12 billion a year in taxes a

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revenue from tobacco, its largest single source of loot. It is not about to cede a millimeter more of that market than it has to. China imposes an import duty of 200% on cigarettes, requires vendors to distribute through the state monopoly and licenses international brands for sale in only a limited number of outlets.

Elsewhere on the continent, the news is not much better. Financially pinched consumers are abandoning expensive smokes like Philip Morris' Marlboro, B.A.T's State Express 555 and RJR's Salem. "There's a degree of trading down from premium, high-margin brands to cheaper local sticks," explains Martin Feldman, Salomon Smith Barney's tobacco analyst.

Feldman says that Philip Morris' market share in South Korea has slumped from 6% to 7% precrisis to less than 3% today and that the cigarette giant's volume in Hong Kong and the Philippines fell by about 10% in 1998. In Asia as a whole Philip Morris had flat sales last year and B.A.T and RJR probably saw declines.

Tobacco products are a $6 billion U.S. export industry, but don't expect the tobacco-bashing U.S. government to pry open trade barriers. "The Clinton Administration has made it clear that tobacco is not politically correct," explains Laura Knight, head of consumer and regulatory affairs for B.A.T Asia-Pacific. Last year the U.S. government sent a circular to its overseas embassies and trade missions instructing them to stop promoting U.S. tobacco products. Tobacco is one of several industries exempt from negotiations over China's proposed entry into the World Trade Organization.

In the mid- to late 1980s, the Reagan and early Bush Administrations forced open tobacco markets in Japan, Korea, Taiwan and Thailand in the name of free trade. But even in these ostensibly opened markets, the tobacco companies face a variety of tariff and nontariff barriers. All four countries still operate state-controlled tobacco monopolies and don't allow foreign investment in cigarette plants. A decade after market opening, foreigners control less than 10% of the Korean market.

The Clinton Administration has made it clear that tobacco is not politically correct.

Thailand, which maintains a 70% duty on imported cigarettes, banned tobacco advertising just in time for the market "opening" in 1990. "It's hard to launch a brand when you can't advertise," grumbles François Stettler, Hong Kong-based vice president for external affairs of RJR International. Perhaps to keep the foreigners off balance, the Thais have repeatedly changed tobacco marketing rules, such as packaging specifications. Today the combined market share of foreigners in Thailand is less than 5%.

A Chinese smoker

Tobacco employs over 10 million in China.

In Japan, where the playing field is almost level, Philip Morris has methodically built a market share of 18% since the business was liberalized in 1987. In Taiwan, where the local monopoly's bestselling brand is—can you imagine?—Long Life, the foreigners have done better, taking a third of the market.

Through tax and investment barriers, the Indian government continues to protect *beedis*, a local handrolled-cigarette industry that employs m lions of rollers. Indonesia, Asi third-largest cigarette market aft China and Japan, is controlled by t local *kretek* (clove and tobacco cig rette) makers.

Even in economies without stro domestic tobacco interests to prote such as Singapore and Hong Kon the cigarette companies confront risi taxes and tighter restrictions on adv tising and promotion. "Free trad Hong Kong should know better, b it has raised taxes on cigarettes steeply this decade that contraba now accounts for 40% of the mark according to RJR International's St tler. The contraband, some of which counterfeit merchandise, undercu dutied cigarettes by more than 50% price and eats into the tobacco comp nies' distribution margin.

At the end of the 19th centu James B. Duke, founder of the for runner of B.A.T, dreamed of what giant Chinese consumer mark could do for an American export His company came close to realizi that dream: By the 1930s B.A. branded cigarettes were easily t most widely marketed and best di tributed foreign products in Chin Today the Chinese market is just dream again.

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By Virginia Postrel

Raise your hand if you hate traffic

Sprawl means spacious houses with yards and flexible drives to work—exactly what attracts families to Austin.

THE 360.ALPHA SUMMIT was a big, flashy conference featuring the cream of the Austin, Tex. high-tech community—several hundred top executives and venture capitalists. Dedicated to the broad topic of improving Austin for technology business, the January gathering was well financed, well attended, and well intentioned.

The summiteers stood up and told high-tech Austin that it's virtuous to be civically involved. America Online cofounder Marc Seriff, now an investor in local startups, said to the *Austin American-Statesman*: "That's a new message that has just begun to spread in the past 12 months." Indeed it has—not only in Austin, but throughout the high-tech world. The Silicon Valley-based Technology Network, a political action group, has grown from 12 founding members to more than 100. Last year these executives held 90 meetings with officeholders and candidates, including 35 fundraisers. Politics has become cool among high-tech leaders.

The trend is encouraging to politicians and policy wonks. High-tech endorsements offer clean money and cutting-edge cachet. If the technology community supports a proposal or candidate, the reasoning goes, that proposal or person must be good for the economy and just plain smart. After all, those high-tech people are millionaire brainiacs.

Unfortunately, earnest technologists can easily be manipulated. They're suckers for the myth of neutral technocracy—think of Ross Perot's "best experts"—that promises solutions with no messy conflicts of interest or values. Eager to seem civic-minded, they often don't ask tough questions or challenge policy proposals couched in positive rhetoric.

These traits were on display in Austin. I spoke at the conference but felt out of place—a rude messenger from the land where political ideas clash, buzzwords have concrete legal meanings and economic policy entails tradeoffs. The conference, by contrast, assumed that smart, well-meaning people will agree on the right set of policies.

"Quality of life" is a prime concern in Austin, since local high-tech leaders know they're not going to lure employees from Silicon Valley with better weather. To protect quality of life, environmentalist Robin Rather told attendees, Austin must contain "sprawl." She rallied them to endorse "transportation and mobility measures that reduce sprawl," a sentiment that won 89% support in an instant poll.

Rather did not specify what measures she had in mind. She was thus able to smuggle a lengthy policy agenda into some well-chosen vague language.

Vice President Gore, who has made opposition to sprawl a defining issue of his nascent presidential campaign, defines the problem as building "flat not tall"—letting houses and office parks spread into the countryside. Sprawl means spacious houses with yards and flexible drives to work. Sprawl is, in other words, exactly the sort of suburban life that attracts families to Austin.

Rather's "transportation and mobility measures" would increase housing density and traffic congestion. Her agenda is controversial, not simply a matter of good intentions and smart planning.

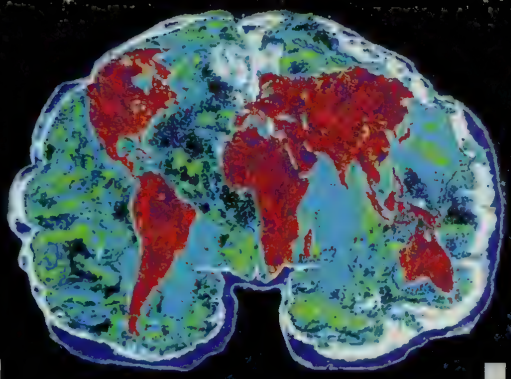
The vague polls didn't fool everyone. "They asked these questions and took great joy in the answers of the audience, but the questions were terrible," says former Microsoft applications honcho Mike Maples, who has retired to a ranch outside Austin. "You didn't have to do any thinking. It was, 'Do you like motherhood?'. . . I didn't think they learned anything."

But you don't ask questions like those to learn anything. You do it to get the high-tech community's imprimatur on policy proposals. Whether they know it or not, Austin's high-tech leaders have gone on record: They're against new roads, suburban housing and office parks, and for mass transit, mandatory carpooling and high-density apartments and condos.

There are genuine arguments for those proposals, which reflect a particular vision of community life. That vision is too static and intolerant in my view, but it deserves debate—the sort of examination the Austin summit was too friendly to conduct.

Like financial capital, political capital is a precious commodity. Investing it wisely requires not just good intentions, but due diligence. ■

Virginia Postrel is the editor of *Reason* magazine and a columnist for *Forbes ASAP*. Her book, *The Future and its Enemies*, was published in December by the Free Press. E-mail: vpostrel@reason.com



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Don't let your daughter get a D.D.S. degree.

Demand decay

By Peter Brimelow

POWELL'S LAW, AS FORMULATED by former British Health Minister Enoch Powell, holds that the demand for health care is infinite—because, in the end, everyone is in a losing battle against death.

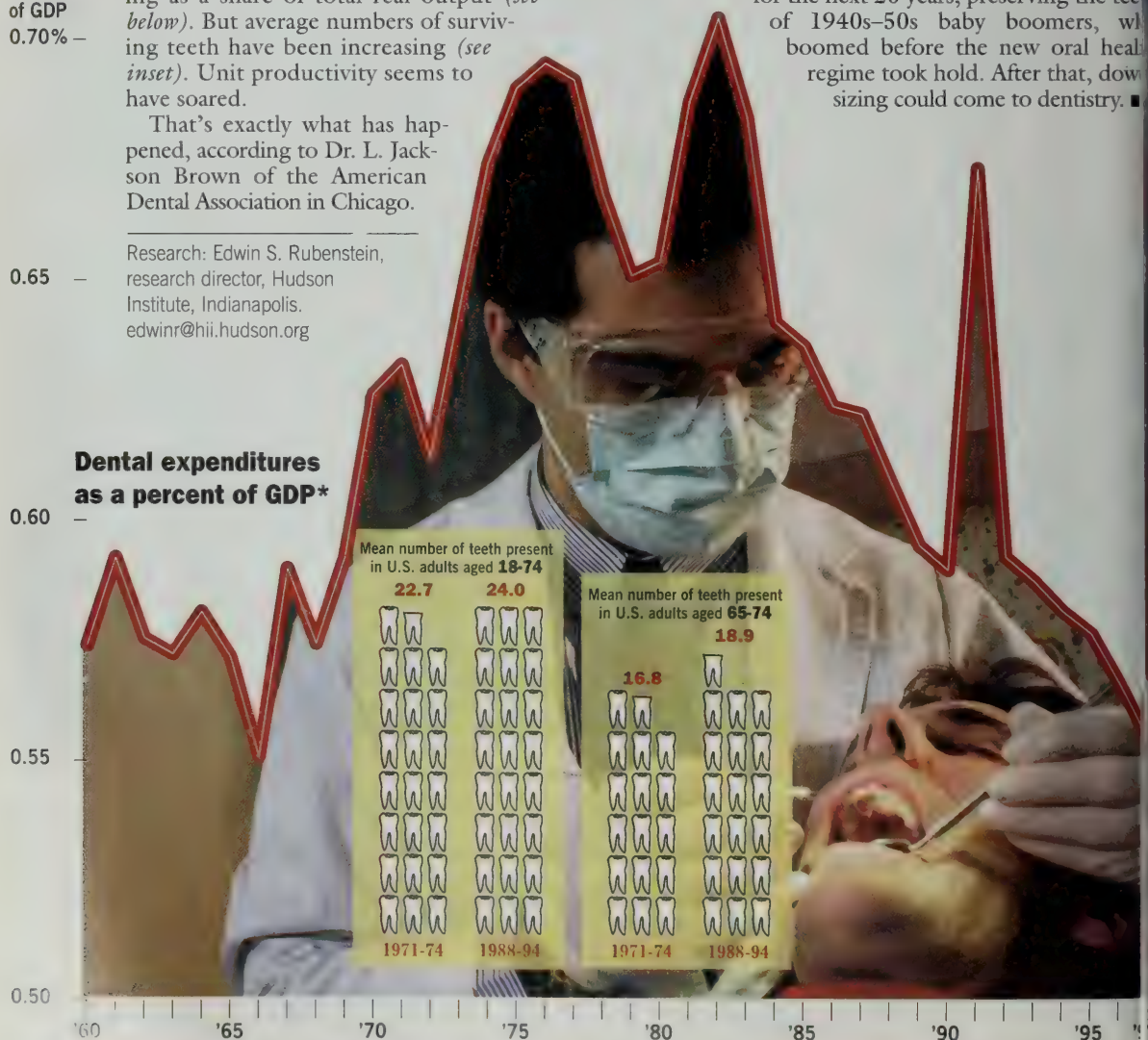
But Powell's Law doesn't seem to apply in the peculiar case of U.S. dental care. For nearly two decades, care delivered by dentists has been declining as a share of total real output *(see below)*. But average numbers of surviving teeth have been increasing *(see inset)*. Unit productivity seems to have soared.

That's exactly what has happened, according to Dr. L. Jackson Brown of the American Dental Association in Chicago.

Brown attributes the improvement to preventive me sures and scientific advancement. Prevention includ better toothpaste and water fluoridation. "The co effectiveness of fluoridation is astounding," he sa Science? "In the 1950s we didn't even know gum d eases were caused by bacteria."

What next? Brown says dentists will be in dema for the next 20 years, preserving the tee of 1940s–50s baby boomers, wh boomed before the new oral heal regime took hold. After that, dow sizing could come to dentistry. ■

Research: Edwin S. Rubenstein, research director, Hudson Institute, Indianapolis. edwinr@hii.hudson.org



...ntal expenditures as a percent of real GDP represents dental expenditures' share of total output, calculated by deflating nominal dental spending and nominal GDP by the dental ... the GDP price deflator, normalized in 1992 dollars, respectively.

Sources: Department of Commerce; Bureau of Labor Statistics; Journal of the American Dental Association.

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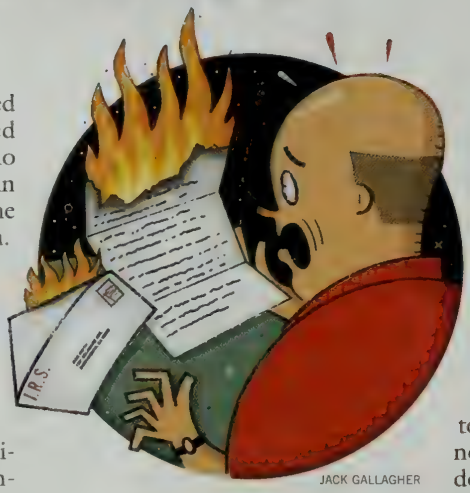
Edited by Laura Saunders

Are the IRS' efforts to implement taxpayers' new rights going wrong?

You have the right to be terrified

By Janet Novack



JACK GALLAGHER

NEW "RIGHTS" FOR TAXPAYERS passed by Congress last year have turned into tax terror for some people who are behind in their tax payments or in the midst of audit. To implement the new rights, which took effect on Jan. 19, the Internal Revenue Service is sending out threatening letters.

"The 1998 law was supposed to effect a culture change at the IRS. Maybe they need to be beat over the head until they acquiesce," sighs KPMG partner Mark Ely, who heads the American Institute of Certified Public Accountants' tax practice and procedures committee.

The first new right: A taxpayer who owes back taxes now can appeal to Tax Court to stop an IRS levy or seizure of his property. That's good news for taxpayers, but it didn't sound like it in a letter sent to some taxpayers. It was headed "Notice of Intent to Levy and Notice of Your Right to a Hearing" and warned that the IRS "may take your property, or rights to property, such as real estate, automobiles, business assets, bank accounts, wages, commissions, and other income"—unless recipients appealed within 30 days.

Worse, some revenue officers sent the scary letter to taxpayers whose property was not, in fact, about to be levied or seized. Thus Chicago lawyer Robert McKenzie says one of his clients who received it had paid his tax bill, while another had offered to pay his $300,000 debt in full over three years. The latter, a commodities trader, now feared that the IRS would levy his trading account, effectively putting him out of business.

Chicago attorney William Marutzky adds that two of his clients received these letters even though the IRS was considering formal "offers in compromise" to settle for less than they owed. Yet the new law explicitly bars the IRS from seizing a taxpayer's property while processing such offers.

Questioned by FORBES, the IRS investigated. Assistant Commissioner for Collection Charles Peterson now concedes that 4,000 taxpayers in Illinois, Texas, Minnesota, North Dakota and South Dakota got the threatening letter when they shouldn't have. But he still insists that taxpayers negotiating installment deals or offers in compromise weren't sent the letter. "We've got a complex new set of laws," says Peterson. "We're probably going to see other mistakes made."

The bureaucratic bungling is particularly troubling because of the IRS' narrow interpretation of the new right to appeal. The new law says that a taxpayer who receives a notice of intent to levy has 30 days to appeal. If he does, there is usually an automatic stay of the levy while he contests it, first at the IRS and then in Tax Court. If the taxpayer misses the 30-day deadline, Congress' tax writers still allowed him an "equivalent" hearing but not an automatic sta

Now the IRS says the wor "equivalent" doesn't include Tax Court hearing. So taxpaye who don't appeal after receivin an inappropriate "Notice Intent to Levy" have theoretica ly lost their right to go to court the IRS does later decide to seiz their property.

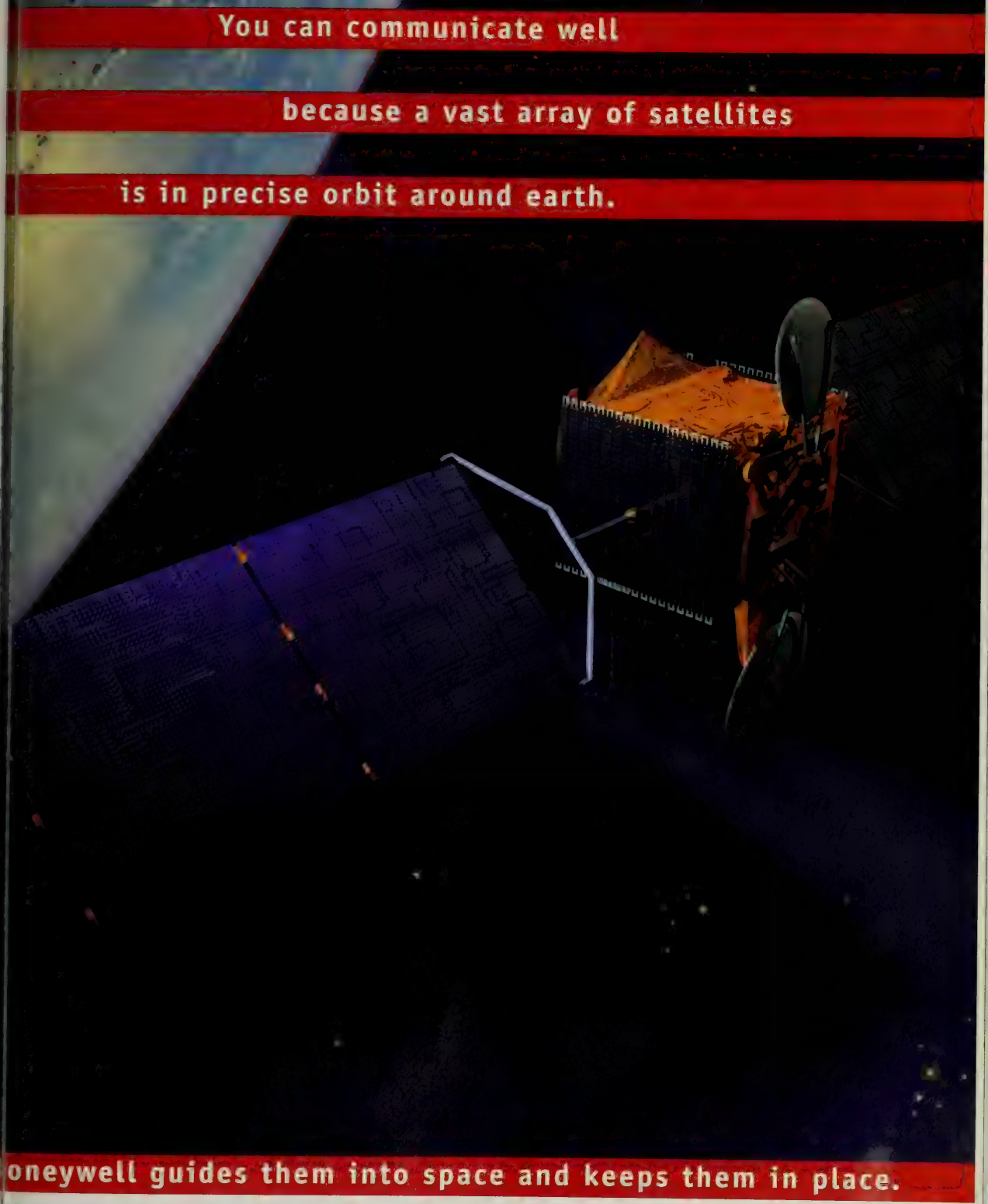
The IRS' solution? It will sen these taxpayers a letter telling ther to disregard the previous threatenin notice. Then, if the IRS ever doe decide to seize their property, it wi send them a new threatening notic as if the first one never went out. Ol

Another variety of threatenin letter was sent to taxpayers unde audit. It warned that the IRS migh contact "neighbors, employer employees and banks" about them.

Here the IRS may have followe the letter of the new law but not it spirit. Originally, some lawmaker wanted the IRS to give taxpayers spe cific prior notice—and a chance t provide information themselves— before agents made reputation-dam aging inquiries. But the Treasur protested, and the final versio requires only a general notice tha third-party contacts are possible.

As it happens, the IRS does usuall try to get records from a taxpaye first, so a cooperative taxpayer ca usually head off third-party inquiries Yet nowhere in its terse letter did th IRS mention this sensible policy. El says one KPMG client, a Californi business owner, had already turne over every scrap of paper requested When he got the letter, he becam distraught, terrified that agents woul contact his bank anyway.

Leave it to the IRS to make even new "right" read like a threat. ■



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A young Canadian comes to the New York Toy Fair—and bets the future of his new business.

Fun and games

By Anne Granfield

New filmmakers get their make-or-break moment at the Sundance Film Festival; artists at the Venice Biennale; jazz musicians at Small's in Manhattan. For young toy and game companies, it's the annual American International Toy Fair in New York City, where 1,400 exhibitors, spread over the massive Jacob K. Javits Convention Center, spend nearly a week vying for the eyes of buyers, big distributors and mom-and-pop retailers. How to stand out? We followed one entrepreneur, Rodney Bruinooge, 25, as he worked the fair from Feb. 10 to Feb. 15.

Bruinooge has a special challenge. He's an outsider (from Winnipeg). His company name, Abject Modernity, sounds like a poor choice for a new mental institution. And his Internet mystery game, called The Stone, is intriguing but extremely complex. Of the 7,500 people (mostly Canadians) who have plunked down $17 to buy a black plastic pyramid the size of a paperweight and log onto the Web site (www.thestone.net), only dozens have figured out all the brain-curdling clues that help solve "the puzzle of the millennium"—a mystery that explores the coincidences of time in ancient history and contemporary events.

A lot is riding on the Toy Fair. A venture capital firm has agreed to invest in Bruinooge—if he can get off to a good start on his 1999 sales target of 750,000 units.

High stakes, high anxiety: Bruinooge schmoozed and pitched on behalf of his Internet game, The Stone (and the necklace token). Will venture capital follow?

Wednesday. Thirty-six hours before the show opens, Bruinooge's cool is melting. He's been searching miles of aisles at Javits for a 7-foot-by 7-foot crate containing his $7,500 custom-made display. He finally discovers it in a remote freight elevator. "I guess the 5 o'clock whistle blew and the union guys had to leave," he gripes as he and his brother Allan struggle to unload it and set up their booth.

Thursday. Up goes the 30-foot-by-10-foot black banner (a $3,20 investment) above the main foo court in the lobby, containing th sphinx-like message, "The Stone," white letters. No explanation, just booth number. A fairly big inves ment for a guy who started Abje Modernity a year ago with less tha $200,000 in capital.

With the official opening a da away, only a few buyers are millin about. A Cincinnati toy store own sipping decaf under the bann

▶ startup clinic/ GROWING PAINS

Planning for divorce

Your business partnership could end up in Splitsville. Long before it happens, you should plan how to handle a breakup or transfer of ownership—or what to do in the event of the death, disability or relocation of a principal.

You already signed an operating agreement when you set up your limited liability corporation (you did incorporate as an LLC, right?). This document spells out such matters as the allocation of profits and losses for tax purposes, noncompete clauses and the day-to-day governance of the business. Now make sure it adequately handles a dissolution.

Astonishingly, 80% of new businesses fail to spell out the mech nism for a divorce. Why? The very idea introduces a seed of susp cion into an otherwise happy union. "It's like asking for a prenupt agreement when you get married," says Randy Myer, professor of entrepreneurship at Pace University in White Plains, N.Y.

A buy/sell agreement can mandate that the exiting partner—or h heirs, in the case of death—sell his interest to the remaining part owners, who are legally bound to buy his interest according to an agreed-upon method of valuation. It can also designate which partn becomes the buyer and which the seller if it comes to that end.

How to value an exiting partner's share? One way is to have an outsider assess a fair price. Some agreements stipulate a yearly valuation of the company. Another method follows the you-divide-

hrugs. "It's clearly not a children's ame, so no, I won't bother to go ook." Curious exhibitors take the scalator up to the Galleria, where he Stone's booth is nicely posi- oned right up front. You can't miss : The display—a giant 3-D black yramid on stilts—rises five feet bove the neighboring booths and he blur of pastel-colored bunnies, rocodiles, Frisbees and yo-yos.

Friday. The first real day of buyers. Looking slick in a dark suit, Bruinooge demonstrates his Web site on a 40-inch flat screen. "We have a unique product for retailers," he tells two distributors from Tel Aviv. Fifteen minutes into his spiel, the Israelis contract for 5,800 units, the company's largest order to date.

By noon, buyers from EToys, Federated Department Stores, Amway of Canada and scores of small-store owners have visited the booth. "It's been a mob scene over there," sighs the saleswoman from the adjacent MerryMakers dolls booth. Thanks to an energetic fax p.r. campaign weeks before, several camera crews and journalists stop by. "Come to our launch party tonight in Times Square—we're giving away 999 Stones," Bruinooge says, pressing plastic VIP passes into their hands.

But by 7 p.m. the hoped-for turnout of hundreds at XS New York in Times Square, the "virtual reality theme park" rented out for the event, fails to materialize. Maybe 75 people sample the cheese-laden buffet in the VIP area overlooking the stage. A grand, multimedia presentation of the Web site fizzles because of hardware problems. Trying to shout over the deafening rat-a-tats of multiple arcade games in the cybercafe, a disheartened Bruinooge deadpans sarcastically, "This is excellent! We're doing great!"

Saturday. A camera crew from the WB Network films Bruinooge as he and four salespeople, including his wife and sister-in-law, work the crowds. There's more traffic today, as buyers, having moseyed through the 1,000 or so booths on the main level, explore the sparser upper floor. Lots of people ask about licensing The Stone. "I can see the gold in their eyes," says Bruinooge. But he wants to establish the game in stores first—and holds out for wholesale deals. Total orders today: 4,500.

Sunday. After a quiet morning the crowds emerge after lunch. Reps from Don Mark Corp., a distributor of men's gifts, return to the booth three times. Don Mark and Bruinooge are still negotiating an order.

Monday. Pack-up time, but not before a visit from a European toy distributor that makes an initial commitment of 25,000 units. An ecstatic Bruinooge tallies the final numbers: 53,000 games worth $375,000 at wholesale. "I've proved to my investors that I can do it," he says. Quickly his euphoria turns to momentary dread. "I've explained the product to so many sharks," he worries, "that someone's got to copy me soon." Before that happens, Bruinooge hopes, he can land that venture capital. ■

nd-I'll choose trick you learned when you were a kid (a.k.a. a shoot-out" clause). The unhappy part-owner announces what he onsiders a fair value per share; the others have a specified period o decide whether they will be buyers or sellers at this price. This is particularly effective means to prevent a 75% owner from low-balling a 25% partner when they can no longer work together.

Give some thought to exactly how the buyout will be funded. You ay want to give the buyers the option of spreading payments over everal years. If a venture capital firm is already involved and/or a ublic offering likely, it may be quite feasible for the departing part- er to remain as a minority shareholder. Businesses sometimes ake out a life insurance policy to fund the buyout if a partner dies.

Bad things can happen if an outsider makes a bid for a piece of he company—the lead partner's share, say—but not everyone else's. You don't want to be forced to work alongside an incompetent heir or a crook. Solution: The buy/sell agreement dictates that an outsider cannot buy a majority interest without offering to buy out everyone else on the same terms. Alternatively, it might provide that the remaining partners have a right of first refusal on any shares being sold.

If your company goes public, the obligations of the operating agreement should be carried out before the stock issuance; many times they become void when the new shares become effective. Afterwards, of course, much of that ownership is in other people's hands.

–Leigh Gallagher

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The hottest ideas in fast food aren't at McDonald's. You'll find them at an up-and-coming chain—in Madrid.

Sizzler

By Richard C. Morais

Delivery: Pujals is bringing fast food to Europe—and a fat return to shareholders

"MOST MANAGERS DON'T have the balls or ovaries to make decisions," roars Leopoldo Fernandez Pujals at a visitor. "Instead of going to war to kill, they go to war to evade bullets." The Madrid-based Cuban raised in America is fond of quoting General Patton and Peter Drucker—and of reminding employees that the continued growth of the company "should provide a reason for your existence."

All this for pizza. Still, Pujals' hard drive has turned TelePizza SA into one of Europe's hottest growth stocks. The Madrid-listed shares, currently trading at $8.60, 51 times average 1999 IBES earnings estimates, are up 990% since the November 1996 initial offering. That puts a $1.85 billion value on the $285 million (1998 revenues) outfit, making Pujals' 36% stake worth $665 million.

Pujals, 52, has never been shy about borrowing ideas—cleanliness from McDonald's; speedy home delivery from Domino's; sit-down comforts from Pizza Hut. His obsessive attention translates these borrowed ideas into net income. He relies on kids to stick TelePizza flyers into mailboxes and carefully monitors sales street by street and store by store in daily computer printouts. He counts the number of complaints filed against managers by part-time staff; he tracks which store and telephone operators sell the most extra orders of garlic bread. Any manager behind the previous month's sales gets hammered. Result: TelePizza's return on capital employed consistently exceeds 30%.

Pujals is taking hold of Europe faster than the euro. As this story goes to press, TelePizza is completing an acquisition, as yet unidentified, that includes some 200 outlets, probably in the U.K. By year-end Pujals will be in Germany and Sweden. He's already opened stores in Chile, Mexico, Morocco, Poland and Portugal. Recently he bought a failed Domino's franchise in France.

Pujals grew up poor in Ft. Lauderdale, after his once-wealthy Cuban family fled to the U.S. in 1960. It would be a long road back to riches. After a tour in Vietnam, Pujals peddled soap for Procter & Gamble, then surgical supplies for Johnson & Johnson. J&J sent him to Spain in 1982, but his corporate ambitions were thwarted and he left the company in 1988. He founded TelePizza in Madrid with $100,000 in savings.

Pujals quickly realized this country of tapas—snacks such as fried mushrooms and stuffed peppers—was modernizing fast. Women were entering the labor force, and exhausted working couples could no longer afford Spain's quaint habit of heavy dinners at 10 p.m. Fast food, he figured, was about to take off.

He left nothing to chance. Pujals had kids taste pizza slices and report their preferences by secret ballot. He refined his recipe until the majority favored the same pie. Only then did he open his doors to the public.

Last year Pujals opened a new TelePizza outlet every three days. There are now 590 of them, 31% of them franchised. In a decade, he has taken some 60% of Spain's pizza market, driven Pizza Hut España into liquidation and forced a restructuring at the PepsiCo Restaurant Group. TelePizza's net income from continuing operations, $35 million

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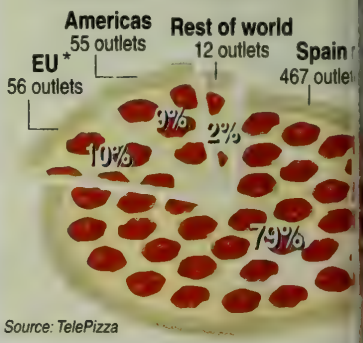
last year, is compounding annually a 45% rate. And still there is room grow. Annual per capita expenditu on fast food is $376 in the U.S., b $64 in the U.K. and just $25 in Spa

Pujals' plan for making that $ figure bigger: a U.S. mall-style "foo court" that combines several fa food menus under one roo Separate kitchens and cash registe will serve Chinese food or pizza, b they'll all share tables, telepho operators, computer systems and centralized delivery service. T idea: Customers call one number order anything from shrimp curry a pizza topped with trout flakes.

The company's prototype foo

Bigger slices

Total 1998 TelePizza SA outlets: **590**



Source: TelePizza

*Excluding Spain

court is in Usera, a tough Madr neighborhood surrounded by 197 housing projects. The outlet open in November, with tables and a ch dren's romp room sandwich between a TelePizza and a TeleGri featuring chicken and ribs. It seer no bigger than your typical urb McDonald's. In a back room, ho ever, 13 telephone operators wi computer terminals take orders; flotilla of 40 bikes is ready to z through Usera's streets.

The everything-flavored fast-foo concept looks like a winner. T Usera outlet cost $620,000 to buil Not counting depreciation charges, breaks even on $103,000 in month sales, but in January, two mont after opening, the 28-year-old mana er booked $144,000. Not goo enough. Pujals demanded a 3.3% sal jump in February, which, based on t past record, is just what he got. ■

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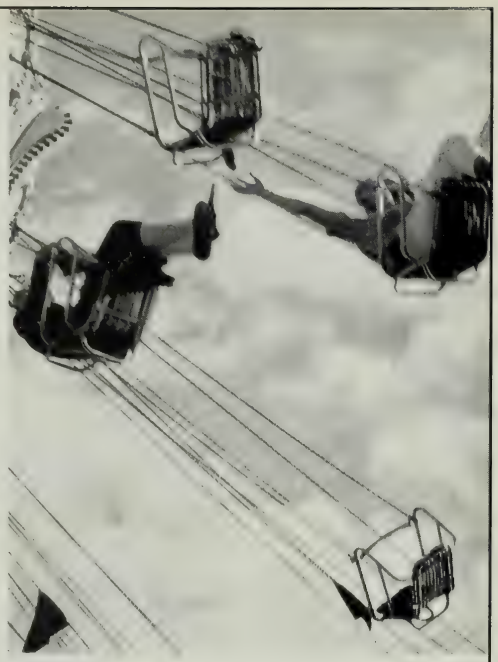

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*SOFRES/InterSearch Windows OS User Reliability Study (6/98). Participants using Windows NT Workstation were about three times less likely to experience serious system stoppages than Windows 95 users surveyed

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up & COMERS

Philippe Bourguignon is trying to rebuild the ailing Club Med into the purveyor of first-class, exotic vacations it once was. He's not there yet.

Paradise regained?

By Cécile Daurat

Trompe l'oeil: Club Med's Bourguignon isn't really relaxing for a moment.

His first day on the job as the new chairman of Club Med, Philippe Bourguignon took off for Djerba, Tunisia as part of a three-month jaunt around the world. Vacation it wasn't. Bourguignon wanted to see firsthand what was ailing the Paris-based leisure group, Club Mediterranée S.A.

He got quite an eyeful. At the resort in Djerba he spotted flaking paint and weather-beaten signs. "Facilities need a face-lift," he wrote in his blue notebook. In Cancún, Mexico he saw roofs falling apart; the rooms were dark and dank. "Face-lift isn't enough," he recorded. "Needs complete renovation."

A ferocious storm in Port St. Lucie, Fla. convinced him to add covered walkways between buildings. The rooms in Bali, Indonesia needed small stools so that guests had a place to open their luggage. More troublesome was the discovery that in Turkey the lower-priced villages of the company's Club Aquarius were cannibalizing sales of the flagship Club Med resorts.

By the end of his tour in July 1997 Bourguignon had a pretty good idea of the mess his company was in. Club Med was not only deteriorating--it had a serious image problem: Everyone still thought of it in 1970s terms as a round-trip ticket to sun, sea and sex. There were thick layers of management deadwood. The company had no strategy to attract young clients. Its answer to declining revenues and soaring fixed costs was to raise prices. Losses jumped to $23 million in 1997, including a $18 million provision for contingencies and charges. Bourguignon had to come up with a road map to profitability very fast.

Club Med had strayed far from its roots. When Gérard Blitz and Gilbert Trigano opened the first village in Majorca, Spain 49 years ago, guests

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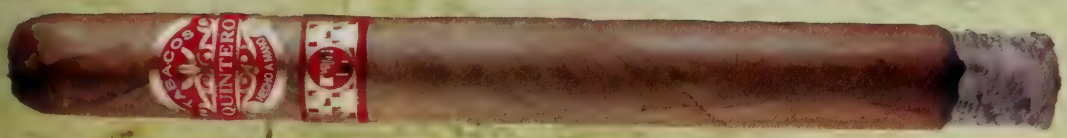

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The first mark of the world's finest cigars.

slept in surplus Army tents and cooked their own food. The company inched upscale, and business boomed in the 1970s and 1980s. But by the early 1990s recession-weary Europeans looked elsewhere for cheaper vacations; Club Med's sales dropped every year save one between 1994 and 1997. Down from a one-time high of $104 in January 1990, the share price languished in the $65-to-$75 range. (Club Med's unsponsored American Depositary Receipts are very thinly traded.)

In 1993 many shareholders learned from the press that Trigano, whose family owned only 1% of the stock, had appointed his son, Serge, as chief executive. Then, in early 1997, he announced a $130 million loss for 1996, instead of an expected $40 million profit. That was enough for the Agnelli clan, the Fiat billionaires who controlled 19% of Club Med. They kicked him upstairs; he soon resigned.

They turned to Bourguignon, then 49, who had just helped turn around the strike-prone, debt-laden Euro Disney theme park. Saving Club Med was a vastly more complex challenge, involving more than 100 villages in 36 countries. Bourguignon came up with a three-year, $580 million plan on four fronts: revamping the brand with an ad campaign aimed at families and young couples; offering some lower prices via off-peak-season rates and more air-included packages; reducing overhead; closing down unprofitable villages and renovating two-thirds of the remaining ones. Bourguignon financed the ambitious program with a $70 million share offering, $140 million in new bond debt and $270 million in bank loans.

The $330 million renovation campaign has been the easy part. So far, 17 villages—from Puerto Maria, Spain to Coral Beach, Israel—have been worked over; another 9 are now being remodeled; the work should be completed by 2001. Designers in a north Paris studio are fashioning a bedroom prototype and Bourguignon supervises every detail, down to the curtain rods.

He's been busy with the guillotine, too, canning two dozen of Club Med's 70 middle managers. Only one of Trigano's 14 top execs survived the blade. Bourguignon will offer early retirement to about 100 employees at headquarters (one-eighth of the total); 30% of them won't be replaced. Bourguignon hopes to slice $15 million from his operating expenses next year, and $27 million by 2001. Eight villages, from Bulgaria to Ireland, will close.

Now for the hard part: attracting couples and families. Club Med has loyalty going for it (each customer uses it an average of 4.5 times), but someone who remembers it as a haunt for swinging singles has trouble thinking of it later in life as a family destination. Bourguignon reorganized the resorts into 7 "family" and 7 "adult" villages. He committed an estimated $180 million over three years to marketing and advertising—print, TV, outdoor—starting with Europe. The signature image of the 1980s was a topless bikini-wearer who implied that the next time the rest would come off. Now Parisian bus stops and subway stations show couples diving together and kids with big grins. Wholesomeness sells. Last year European revenues rose 9.7%, to $1 billion.

MARK LAWRENCE

Bring on the crowds: Club Med's Cancún, Mexico resort—after a major face-lift.

No such luck yet in the U.S., where 1997 revenues dipped 4.7% to $257 million. To boost sales, Club Med is helping travel agencies with direct mail and targeting prospects with special interests in activities like scuba diving. There's a new grab-bag vacation: a thousand bucks per person buys airfare and a week at a destination that is disclosed a week before departure.

Pricing is still a vexing issue. Guests often complain that they've paid $500 more for the same vacation than the guy in the Bermuda shorts sitting across from them at the communal table. If you don't book your flight with Club Med, you're likely to get stuck with expensive cab fares to the resort. Bourguignon has simplified the price structure and experimented with 30% off-season discounts.

A year into Bourguignon's strategy Club Med is showing signs of life, earning $30 million on revenues of $1.5 billion in 1998. The stock has recovered to $103. But real success depends on getting new customers from the U.S., Germany and Japan. A resort cannot be rebuilt in a day—and neither can a brand name. ■

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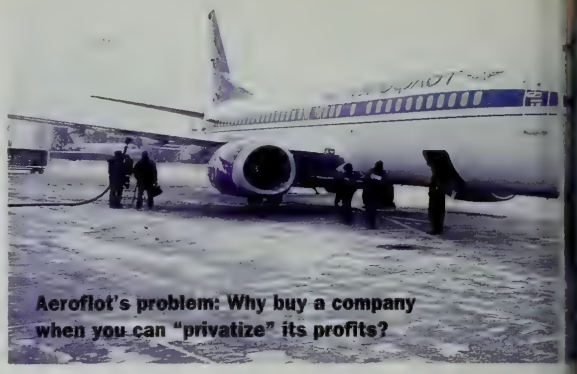


Aeroflot's problem: Why buy a company when you can "privatize" its profits?

In the second stage of Russian capitalism, fortunes made in the first are under attack. Tycoon Boris Berezovsky is in trouble—maybe even as much trouble as the whole rotten Russian economy.

The day they raide

By Paul Klebnikov

Moscow, Feb. 2. From my room in the Hotel Baltschug I am looking at a pink dawn spreading over the city. Suddenly, three white vans screech up to the building across the street: the headquarters of Sibneft, one of Russia's largest oil companies. A dozen men in ski masks and camouflage, armed with automatic rifles, muscle their way inside.

These were neither gangsters nor terrorists. They were members of the Federal Security Service and investigators from the prosecutor general's office, and they were entering the empire of Russia's most powerful tycoon, Boris Berezovsky. Officially, they were interested in a private security company, linked with Berezovsky, which is being investigated for possessing illegal eavesdropping equipment. The police say the security firm had used the gear to spy on members of Boris Yeltsin's family. But an eavesdropping investigation by itself would not justify the show of force. Something more is going on, an official government rethinking of the crony capitalism that has made men like Berezovsky rich.

Two days later, Feb. 4, police raided the offices of another Berezovsky-controlled company: Aeroflot, Russia's national airline (1997 sales: $1.4 billion). On that day, the prosecutor's office said it had opened a criminal investigation into possible currency-law violations by the airline. The prosecutor's men have told FORBES that in the tangled relationship between Aeroflot and Berezovsky they are looking for evidence of fraud, embezzlement and tax evasion.

Two weeks after that the Ministry of Internal Affairs opened a criminal case on the same charges against Russia's largest automaker, Avtovaz, which has had close ties to Berezovsky.

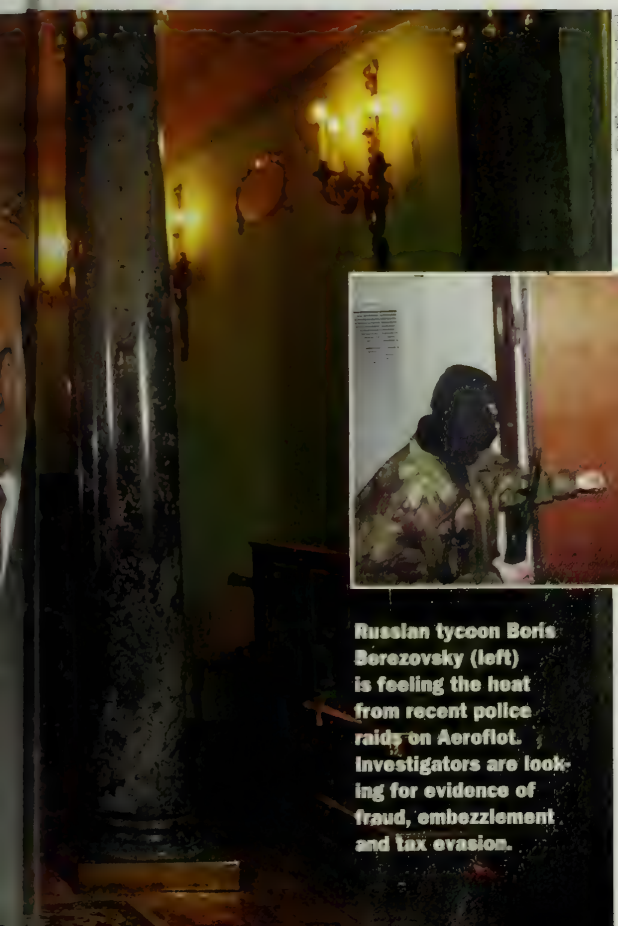
Russian capitalism is at a crossroads. In the first six years after President Boris Yeltsin came to power, a mad rush to privatization put valuable assets into the hands of a small circle of well-connected businessmen. Western investors bought into this transformation, putting $8 billion into equities and $40 billion into loans.

Now the economy is in a meltdown. Western capital has pretty much evaporated. The population is poor and sick; people eat dog food for protein; the cities are home to hundreds of thousands of orphaned street kids scavenging for food. Russia's businessmen, even those as well-connected as Berezovsky, are going to take some blame.

"Privatization in Russia goes through three stages," erezovsky explained to this magazine in 1996. "First, ne privatization of profits; second, the privatization of roperty; third, the privatization of debts."

In other words, before you buy a state-owned compa-y, you first "privatize" its profits. What does that mean? Ve don't know exactly, and Berezovsky isn't about to tell s now. He and his business associate Nikolai Glushkov are uing FORBES for libel in London over our Dec. 30, 1996 rticle "Godfather of the Kremlin?" But we'd guess priva-zing profits means that even without taking title to a busi-ess, somebody could capture part of its revenue stream.

leroflot



Russian tycoon Boris Berezovsky (left) is feeling the heat from recent police raids on Aeroflot. Investigators are looking for evidence of fraud, embezzlement and tax evasion.

If that's what he meant, Berezovsky's takeover of Aeroflot could be a textbook example. In the autumn of 1995 Aeroflot was one of the crown jewels of Russian industry. It had landing rights all over the world, relatively new aircraft and a steady stream of foreign exchange revenues. The state kept a 51% interest in the company but privatized the other 49% by giving it to Aeroflot's management and employees. (Some of that stock now trades publicly on the Russian Trading System.)

Aeroflot, in short, was a plum, and Berezovsky, with his connections to President Yeltsin's family *(see box, p. 110)*, was in a position to take control. Out went Aeroflot's veteran director. In came Yevgeny Shaposhnikov, a marshal of the Soviet Air Force, who knew nothing about business. As Shaposhnikov's deputy and the airline's powerful chief financial officer, Berezovsky brought in his old friend Glushkov.

Now it was time to "privatize" profits. Aeroflot's money began moving back and forth within a network of Berezovsky-controlled financial companies in Russia and abroad.

In May 1996 Marshal Shaposhnikov sent a letter to the airline's 152 foreign offices ordering them to remit up to 80% of their foreign currency revenues to Andava S.A., an obscure financial company in Lausanne, Switzerland. (Much later, Marshal Shaposhnikov would tell the Russian press that he had been told to sign this letter by Berezovsky's man Glushkov.)

Andava was going to serve as Aeroflot's foreign treasury center. This company, set up in 1994 with help from the big Swiss commodities trader André & Cie., had served as a foreign treasury center of the automaker Avtovaz. That relationship lasted about a year, until Avtovaz, nearly bankrupted by the predations of its dealers and financial intermediaries, severed most of its ties to Andava.

Half a year later Andava took Aeroflot as a client. Considering that foreign revenues are the lifeblood of Aeroflot, the decision to set up a foreign treasury center was a crucial step for the company. But Aeroflot made no mention of Andava in its annual reports.

There were reasons for Aeroflot to keep the Andava relationship secret. While lots of big companies maintain foreign treasury centers, Aeroflot was unique in that its treasury center, Andava, belonged to someone else.

The minutes of an Andava board meeting in Lausanne in February 1996 listed the shareholders: Berezovsky, 37%; Glushkov, 34%; André & Cie., 21%. Owners of the rest were unspecified.

The treasury operations that Andava performs, on a trust basis, for Aeroflot are relatively simple; in the past they were done by Aeroflot's own Center for International Payments. Many big international banks also offer international cash-management services.

So why does Aeroflot use a financial company no one has ever heard of? Says Christian Maret, head of the André & Cie. office in Moscow: "I don't know. I can only guess."

The circumstantial evidence is that some kind of "pri-

vatization of profits" is going on. According to the May 1997 contract between Andava and Aeroflot, Andava receives a commission of 3.125% on all the funds it handles for the airline. (Compare that to a tiny fraction of one percent that big banks typically charge for cash management services.) Later, the Russian prosecutor's office tells FORBES, Andava's fee was brought down to 2.5%, earning the Swiss firm $11 million in fees in 1997. Not bad for an operation with only half a dozen employees.

What does Andava do with the Aeroflot money? It lends it right back to the airline—for instance, a $14 million loan in June 1997. We don't know the interest rate charged.

The fact is that for most of the three years the Andava-Aeroflot relationship has lasted, shareholders could not have known that the bulk of their company's precious hard-currency revenues was being handled by an unknown Swiss company. Neither did Aeroflot inform shareholders that one of the owners of Andava was Nikolai Glushkov, the man who exercised the unilateral right to sign financial contracts on Aeroflot's behalf.

Side by side with Andava, Berezovsky and Glushkov set up an even stranger operation to pay Aeroflot's foreign bills.

In April 1996 Andava established a company in Moscow called FOK (Finansovaya Obedinennaya Kompaniya—meaning United Finance Corp.). FOK signed a contract with

65% annual interest rate in rubles (since the ruble was declining only a bit against the dollar at the time, that amounted to about 46% in dollar terms). By the time Aeroflot finally paid for the fuel it bought from BP, it was paying about a 90% annual rate (in dollar terms) on its loans.

If Aeroflot was getting shafted by the FOK-Grangeland relationship, the Russian tax authorities were left empty handed as well. According to its confidential 1996 annual report, FOK wiped out 97% of its pretax profits with "foreign exchange losses." (Yes, those losses were Grangeland's gain—that much is clear from the annual report.

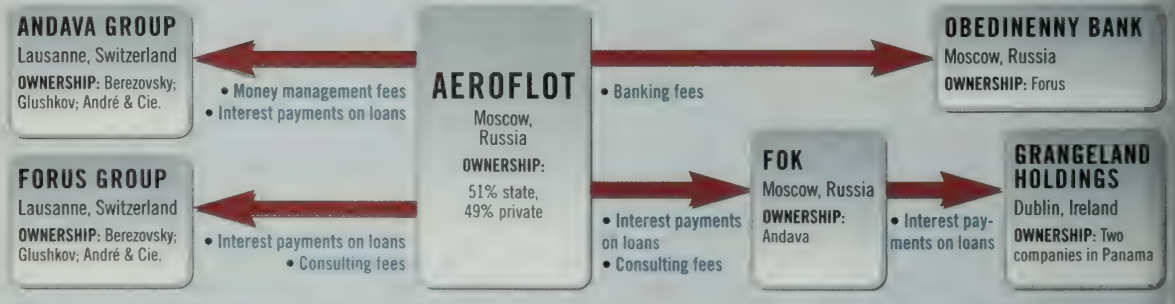
And what is Grangeland? The Dublin address is just a postbox. We don't know who owns Grangeland, except that the shareholders include two Panamanian companies. Grangeland has two directors; both are employed by the small Swiss accounting firm that services Andava.

Given the huge problem of Russian capital flight (the root cause of the destruction of the ruble), the Russian Central Bank tries to enforce stringent rules on repatriation of foreign exchange revenues.

"Aeroflot is not subject to that regulation," says William Ferrero, Andava's general director. "It is exempted by a Central Bank license."

Aeroflot applied for that license on July 5, 1996, not long after Berezovsky gained control. But official

Where does the money go?



Note: Ownership information is circa 1996; it is not an exhaustive list.

Sources: Company documents and interviews.

Aeroflot to pay some of the airline's foreign bills: $139 million in 1996, and $82 million in the first half of 1997.

FOK in turn passed these bills on to a Dublin, Ireland-registered company called Grangeland Holdings Ltd.

The FOK-Grangeland bill-paying operation cost Aeroflot dearly. In 1997, the airline had to pay $29 million in "penalties" on this operation, according to Aeroflot's annual report. (Late payment penalties? Interest? It is left deliberately murky.) And that's probably not the full extent of the losses Aeroflot suffered on the FOK-Grangeland operation.

Here's how it worked. Say Aeroflot had a $500,000 bill to pay to British Petroleum for jet fuel. Instead of paying the bill directly, Aeroflot passed the bill to FOK in Moscow, which passed it to Grangeland in Dublin. Grangeland paid the bill. The payment was considered a loan from Grangeland to FOK, with annual interest of 3[illegible] in dollars. FOK passed this interest expense on to Aeroflot, tacking on a

at the Central Bank demurred.

In March 1997 Marshal Shaposhnikov was out as general director; in came Valery Okulov. A former Aeroflot navigator, Okulov had no more experience in business than Shaposhnikov, but he happens to be Boris Yeltsin's son-in-law. Within two months of his appointment the Central Bank gave Aeroflot its license exempting the airline from Russia's currency repatriation rules—rules that the prosecutor's office says Aeroflot may have been violating for more than a year.

As the authorities dig into Aeroflot's books, they are focusing on its relationship with another small company in Lausanne, Switzerland, called Forus Services S.A.

Like Andava, Forus had been established by Berezovsky, Glushkov and André & Cie. Its job with Aeroflot is to act as a financial consultant and intermediary with Western banks. It also helped set up Obedinenny Bank

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IN THE EARLY YEARS of the Yeltsin regime, every successful Russian businessman needed a political patron. Boris Berezovsky's patron was General Alexander Korzhakov, Yeltsin's most trusted aide and the head of the Presidential Security Service—a kind of praetorian guard and KGB rolled into one.

In 1994–95, during the free-for-all that was Russia's privatization, Korzhakov provided Berezovsky with political support as the tycoon accumulated a stream of state-owned assets. He also provided him with muscle, unleashing his security men on Berezovsky's business rivals.

Korzhakov told FORBES how Berezovsky appeared in Yeltsin's inner circle. "It was late 1993 and we were looking for a publisher for Yeltsin's second book," Korzhakov recalls. "Berezovsky offered to publish it in Finland at his own expense."

Celebrity author Yeltsin and aide Korzhakov (left).

The book had been ghostwritten by Valentin Yumashev, a journalist who had known Yeltsin for years and freelanced as his biographer. The book, *Notes of a President*, was a crashing bore—and was roundly ignored.

Berezovsky, however, orchestrated an advance that would have made Newt Gingrich proud: $3 million (according to Korzhakov) deposited in an account at Barclays Bank in London, generating $16,000 monthly in interest.

Yumashev was the courier. Korzhakov, who had the right to access President Yeltsin's private safe, recalls that every month Yumashev would come to Yeltsin's office with the interest payments in cash, which the president would stash furtively in his safe.

"As more and more money kept coming in, Yeltsin was told that he was receiving money from the book, that the whole world was reading it, that the whole world was loving it," Korzhakov says.

Yeltsin may not have known that the book sales were fictitious, but naturally he was grateful to Berezovsky for having organized such a successful venture.

Berezovsky was careful to take care of Yeltsin's youngest daughter, Tatyana Dyachenko, as well. Dyachenko would soon become the power behind the throne, accompanying her father to meetings with world leaders and making recommendations about top government appointments. Over the course of 1994-95, according to Korzhakov, Berezovsky gave Dyachenko lavish presents: jewelry, a customized Niva sport utility vehicle and then a Chevrolet Blazer.

Berezovsky was a benefactor of Yumashev as well. For years he was effectively Yumashev's employer, since he owned the magazine where Yumashev worked. That relationship came in useful in March 1997, when Yumashev was made Yeltsin's chief of staff (read: gatekeeper).

And then there is Yeltsin's son-in-law, Valery Okulov, who has been heading up Aeroflot since March 1997.

The circle seemed complete. But nothing lasts forever. Over the past several months Yumashev was fired, Yeltsin (and Tatyana Dyachenko) have been sidelined and Valery Okulov has severed his ties to Berezovsky. –P.K.

which serves as Aeroflot's banker in Russia.

Russian authorities tell FORBES they are looking into why, in 1996, Forus took a chunk of the $244 million Aeroflot was paid by foreign airlines for their Russian overflight and landing rights. Forus responds that it went to repay some private loans it had made to Aeroflot.

Forus and Andava officials tell FORBES that currently neither Berezovsky nor Glushkov is a shareholder of either corporation. So who is? Difficult to say. The owners are not listed in a register, but are the holders of anonymous bearer shares. Both boards contain Swiss financier (and longtime Berezovsky ally) Alain Mayor and two Swiss lawyers.

This much is clear: Under Berezovsky's managers, Aeroflot floundered. The company lost $82 million in 1996, $93 million in 1997. Last spring Aeroflot begged old partner André & Cie. to increase a syndicated loan by $17 million to cover a cash shortage. A few months later Canadian authorities impounded an Aeroflot plane because the airline hadn't paid a $6 million bill to a Canadian hotel.

In launching a criminal investigation into Avtovaz and Aeroflot, the new government under Prime Minister Yevgeny Primakov seems to be signaling its determination to bring Boris Berezovsky and Russia's other tycoons to heel.

Yeltsin son-in-law Valery Okulov seems invigorated by the new breeze. The day the police searched Aeroflot's offices, Okulov fired several managers and directors—including all remaining Berezovsky appointees (Glushkov had already left several months earlier). At a press conference he railed against "intermediaries" and "contracts unfavorable to Aeroflot" relating to foreign ticket sales and foreign financial operations. He also said he would terminate the special relationship between Aeroflot and Andava.

There was an era of privatized profits, and there will evidently be an era of unprivatized profits. But Russia still has a long road to travel before it enjoys the kind of accountability and respect for property rights that make Western-style capitalism possible. ■

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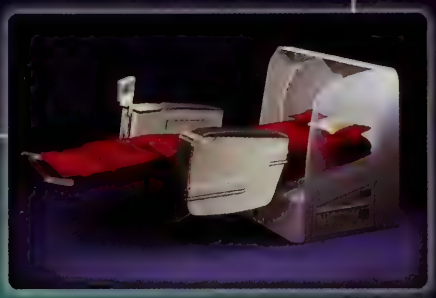

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KOREAN AIR BEYOND YOUR IMAGINATION

A Utah-based group of companies peddles boot camp-style rehab for wayward adolescents. But are they offering "attitude adjustment"—or abuse?

Too-tough love?

By Tomáš Kellner

AT 3:46 ON THE MORNING of Nov. 30, 1996, Stanley Goold III, a 16-year-old high schooler from Middletown, Calif., recalls being shaken awake. Over his bed stood three hulking strangers. One of them tossed him his clothes. "Get dressed," he ordered the boy.

Still groggy, Stanley was hustled into a waiting rental car—but not before his mother, Jane Goold, handed him a small bag packed with a few articles of clothing. Stanley says that she never even told him where he was going—to a "program" to help fight his alleged marijuana and alcohol habits. (Stanley always denied he had a problem and says he took two drug tests that were negative.) Two men sandwiched him into the backseat, and the car sped off.

The next evening, Stanley says, he arrived at Brightway Adolescent Hospital, a private psychiatric hospital in St. George, Utah, where he was told to take a shower and put on a hospital gown. He asked to call his dad—who had divorced his mother years ago and knew nothing of her plans to send Stanley away for treatment—and was turned down. Stanley spent the week being evaluated by a psychiatrist who diagnosed him as normal, with above-average intelligence, but "underresourced"—a condition never explained to him, but apparently serious enough for him to be sent to a drying-out cam for a year.

A week later, he says, he was pu on a plane to Western Samoa, site the school called Paradise Cov where he was forced to sleep on small mat in a crowded room. " was worse than being in priso because we didn't know when w were going to leave," says Stanle who claims he still suffers fro nightmares. His father discovere Stanley's whereabouts only after h son failed to show up for a sche uled visit. That prompted him to g to court. Nine months later he g physical custody of Stanley and to him out of Paradise Cove. Tod he's an 18-year-old freshman

An unintended vacation

Stanley Goold's harrowing 11-month odyssey began in his bedroom in November 1996 and took him to a rehab camp halfway around the world. He's home again, but the journey won't end until he's had his day in court.

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Pretty pictures, painful memories

A group of Utah companies offers "innovative programs" in beautiful settings to help teenagers with emoti and behavioral problems. Paradise Co where Stanley Goold spent nearly a y is called "the perfect place for teens sort out their lives and make a new beginning." No mention of what Stanl remembers: time out in the "dungeon seeing other kids beaten.

Ohlone College in Fremont, Calif., where he lives at home with his dad.

Stanley Goold was one of about 950 teenagers who have been enrolled at Paradise Cove or one of its six sister schools in the U.S., Jamaica, Mexico and Western Samoa—loosely directed by a LaVerkin, Utah-based group known as the World Wide Association of Specialty Programs (WWASP), which markets the schools under the name Teen Help. According to ads in *Sunset* magazine, as well as its Web site (www.vpp.com/teenhelp), Teen Help offers "schools, camps, other alternatives"—intensive rehab programs—to help 13-to-18-year-olds with psychological or substance abuse problems. Parents pay up to $54,000 a year for treatment and services. It is estimated that WWASP and affiliated companies pull in $30 million-plus in annual revenues.

Okay, lots of troubled teenagers aren't going to respond to gentle suggestion, especially from their parents. But some of WWASP's camps may push tough love too far. Last November its Morava Academy closed down after Czech police charged its U.S. managers with child torture; those criminal charges are pending. They were the same managers who were arrested, did time and fled Mexico when Sunrise Beach, a school for girls in Punta Sam, was shut down in May 1996 after employees complained to the media about prisonlike conditions inside the facility.

Karr Farnsworth, president of WWASP, defends the camps as highly structured boarding schools. The programs, he says, offer a mix of school, self-study and self-improvement seminars, along with therapy to change attitude problems.

Students usually live in dormlike rooms and stay for 12 to 18 months. "These kids are not being sent to Rikers Island," Farnsworth insists. "Students get their lives in order and go home as productive citizens." He recently surveyed hundreds of parents and claims that all but a few said they'd made a good choice enrolling their kids in the program, and would recommend it to others.

FORBES talked to two sets of pa ents who were very happy with th program and said their childre came back minus their drug habit and bad attitudes. Daniel Kolle Jane Goold's attorney, says he spen $60,000 on therapy for his so Daniel before sending him to Pa adise Cove. "He was doing cryst meth; that was his drug of choice, says Koller. Now, he claims, "he's fantastic new human being, a re loving guy," currently enrolled i the California Maritime Academy i Vallejo.

These days Stanley Goold doesn feel rehabilitated. He has enliste Thomas Burton, a Pleasanton, Cali attorney, to sue the operators of Pa adise Cove. Burton has filed tw cases against WWASP schools in fede al court and is preparing cases o behalf of eight additional client Burton compares Paradise Cove t "a private prison," and alleges it is place where "adolescents ar impounded, tortured, berate brainwashed and otherwise abused.

WWASP officials—the ones wh returned phone calls—steadfastl deny all this. But the evidenc

Two teen camps—one in Punta Sam, Mexico, the other in the Czech Republic—were shut down after local employees charged that camp officials were physically abusing kids.

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strongly suggests that teenagers in the program—whose parents have signed away their rights—live under the constant threat of physical punishment and receive little therapy.

Stanley Goold says he never received any counseling during his 11-month stay. But he vividly remembers the physical treatment. "I saw a few kids punched, kicked and thrown, but not nearly as many as I heard about," he recalls. For small infractions—chewing food with an open mouth, talking back to the staff, failing a test—Stanley himself landed in the "dungeon" a half-dozen times for a day or two. There he'd be forced to sit cross-legged on a cement floor for 12 hours a day, listening to tapes about the lives of Socrates, Beethoven and Genghis Khan. Students who tried to flee the dungeon, says Stanley, would be locked up in a tiny cell for weeks at a time. "Sometimes they'd put duct tape over the kid's mouth, hog-tie him or put on handcuffs," he says.

Farnsworth says, "We do not permit physical abuse." If some kids were to get out of control, he says, "they would be temporarily restrained by a member of our staff until they calm down and promise to cooperate."

It's difficult to establish a pattern of problems at the schools, partly because they operate independently of each other, as do the handful of other companies that provide services to WWASP. "The corporate structure is extremely complex and convoluted—deliberately so," charges attorney Burton. That way, he says, the right hand can claim it has no idea what the left is doing.

In addition to the seven "residential facilities," WWASP does business with firms in or around nearby St. George, Utah. There's Teen Help, the marketing arm that directs parents to various camps and which, according to Farnsworth, also provides referrals to "escort services" of the type that whisked away Stanley Goold. Dixie Contract Services helps the schools hire firms, such as R&B Billing, to do back-office work. Brightway Adolescent Hospital closed down in March 1998 for financial reasons, the company insists—but not before the Utah Department of Health launched an investigation into its alleged practice of admitting children without the consent of both parents. Then there's Resource Realizations, which provides the camps with seminars and training materials.

Farnsworth insists all the companies are independent of each other. If so, there are some strange coincidences. J. Ralph Atkin, the founder of SkyWest airlines and former co-director of business and economic development for the State of Utah, has been an attorney for Teen Help and a registered agent for R&B Billing and Dixie Contract. According to the Utah Department of Commerce, he is a trustee of WWASP. Atkin denies this, saying that state records aren't up to date. "I don't have anything in common with the business operation," he insists. He does concede that he co-owned Morava Academy, the WWASP school that was closed down last fall by Czech authorities.

Another figure who keeps popping up is Narvin Lichfield, whose brother Robert founded Cross Creek Manor in 1988, the oldest school in the WWASP network, established Paradise Cove and ran Teen Help before his retirement a few years ago. Narvin Lichfield owns Carolina Springs Academy, a WWASP school in Abbeville, S.C. He is the president and the director of St. George-based Adolescent Services Incorporated (ASI), which, like Teen Help, is a marketing company for the schools. He is on the board of At Risk Teen Foundation, which raises money to help parents defray the costs of WWASP schools offered through ASI, including Carolina Springs. The Internal Revenue Service is reviewing At Risk's application for status as a tax-exempt charity. Lichfield insists it's all perfectly kosher. "The foundation will be giving grants to the parents, not to the schools," he says.

Still, the suits are moving forward. Most legal action to date has been directed against parents. Last year a superior court judge in Oakland, Calif. dismissed a suit brought by the Alameda County deputy district attorney on behalf of then-16-year-old David Van Blarigan against his parents for sending him against his will to a WWASP school in Tranquility Bay in Jamaica.

And in January Children's Services in Ohio's Franklin County halted an investigation of a Columbus couple who had dispatched their 17-year-old son to Tranquility Bay. The boy was allegedly handled roughly on the trip to Jamaica. The parents agreed to settle out of court.

Parents of deeply troubled adolescents face a terrible dilemma. A misguided response to the problem may get results; an extreme one, like what WWASP seems to be offering, may turn out to be overkill. ■

Two teenagers are suing their camps and related companies for alleged "negligent child abuse, false imprisonment and intentional infliction of emotional distress."

Men with connections

J. Ralph Atkin and Narvin Lichfield *(bottom)* have invested in rehab programs and served as trustees of several companies that now provide services to them.

Advertisement

The New Market for Electric Utilities

Electric utilities are the latest major industry to experience an arduous process of deregulation. The transition from regulatory controls to free enterprise created both anxiety and opportunity for employees, customers, and investors in the railroad, trucking, banking, airline, telephone and natural gas industries. The $300 billion electric utility industry, the largest U.S. industry to restructure, will be no different.

Since the end of the nineteenth century, the power industry has been structured quite simply: A local utility generated power and then transmitted and distributed it through its own services to captive customers in its own geographic territory. This vertically integrated process is changing. The generation of power—producing electrons or kilowatt hours—is being separated from transmission and distribution, delivering of energy to the end user. The generation portion of the industry will be based on an open, unregulated commodity market where the price of a kilowatt hour will fluctuate according to supply and demand. The competition

for customers may be fierce. Competition will be the name of the game with traditional utilities, as well as newcomers, vying to be providers of choice. The competitive marketplace, not regulators, will determine the price for energy. The transmission and distribution business is the part of the former vertically integrated industry to remain regulated. Energy will be delivered primarily by the local electric company whose wires are firmly rooted in a particular service territory or region. This side of the business will be less volatile in the short term and will include key activities such as metering, billing, maintaining physical assets and working closely with regulators, legislators, customers and communities.

Utilities are evaluating their strengths and weaknesses to maximize their position for an unpredictable future. For the first time, utilities are making strategic decisions about what it takes to be competitive in an environment that is both market driven and regulated.

GPU: THE INFRASTRUCTURE COMPANY

Investors in utility equity securities are realizing that the current climate represents a heightened activity with new opportunities for gain. Acquisitions, divestitures, regulatory rulings, new markets and services, and global expansion will affect utility stock performance.

For GPU, one of the nation's largest electric utilities, industry restructuring served as a catalyst to evaluate its strategy and choose its course for the future. The Morristown, New Jersey-based company took stock of its strengths and geographic position, and began a transformation into a company that offers shareholders traditional utility performance in the new deregulating world. Despite evolutionary industry change, GPU is doing what it does continually doing it better then leveraging that exp into new markets. By ag sively pursuing a tradit low-risk investment profile company seeks to maxi shareholder value.

During the early 1 GPU began the proces developing skills in newly evolving Indepe Power Production busi Acquisition of regulated el utility businesses in the UK Australia followed. In GPU completed the trans by announcing plans to ex generation business and centrate on the delivery of gy-related services. When divestiture is complete in 1999, GPU will offer inve the same type of risk pr growth rate and dividend out they received wher aspects of the business regulated. Because planned early and took clear steps, it may be one o few utilities that will be ab offer this stability.

GPU Strengths: Focus, Results

regulated infrastructure ness will be essential to port the emerging competi- market for electricity. The ands will be enormous rding to GPU Chairman, ident and CEO Fred D. r. "For restructuring to truly eed, the industry will have o more than provide lower s. The demands and expec- ns cover a wide spectrum roducts and services: new ng options, different uses lectricity, new methods to age consumption, and ling consumers to express own preferences for relia- and quality of service, for ers." GPU is positioning its rational skills and infrastruc- assets to add consumer e. Hafer adds, "By focusing our infrastructure business, are looking for opportuni- to use similar skills to grow business horizontally—anding into natural gas dis- ution, the physical asset e of telecommunications, potentially, water compa- ."

"A clear focus on the infrastructure business will enable GPU to play a pivotal role in creating value for both our customers and shareholders."

Chairman, President and CEO Fred D. Hafer

In order to gain a competitive advantage as the industry restructured, in late 1997 GPU began transforming itself.

REALIGN AND IMPROVE THE BUSINESS

Two years ago, GPU began an alignment of the company's business processes that will assure seamless and efficient operations and incorporates the best practices to be found in the business world.

Integral to GPU's successful process alignment is one of the very first, most cost-effective enterprise information management systems in the industry. This system is not only coming online on schedule and within budget, a unique accomplishment in today's IT world, but allows a companywide re-engineering of all infrastructure business processes. This decreases cost and still provides the capability to export operational skills and process efficiencies to other service territories either through acquisition or by management contract.

The ultimate goal of transformation: to maximize the value of the company's assets.

DEREGULATION IN PENNSYLVANIA AND NEW JERSEY

One of GPU's strengths lies in its ability to work with state regulators and legislators—a key competency as each state works out its own deregulation plan with local utilities. In Pennsylvania, the utility will recoup essentially all of its stranded costs, including the above-market costs of its non-utility generating contracts. "The settlement was fair for the State, for customers, and for GPU shareholders," says Vice President and Treasurer Terrance G. Howson.

New Jersey's deregulation legislation, signed into law on February 9, promotes customer choice and reduced electric bills and provides provisions for stranded cost recovery for GPU.

GPU Strengths: Action, Results

SUCCESSFUL ASSET SALES

In 1998, GPU's self-initiated generation divestiture (the only major sale not prompted by regulatory mandate or financial conditions) yielded a significant sale price, well above book value. But this was not just the luck of the marketplace. Four years earlier, in 1994, GPU began to prepare its generation business for the new world. A separate operating unit, GPU Genco, was formed to take over operation of the company's power plants. The unit was organized and began to think like a separate business. By the time the assets were auctioned in 1998, the plants were operating with lower operating and generating costs and higher availability than ever before.

The combined sale of the non-nuclear generating assets for $2.62 billion yielded 2.5 times book value, or approximately $510 per kilowatt. According to Bruce L. Levy, GPU's Senior Vice President and Chief Financial Officer, "The proceeds from the sales, after repayment of generation related debt, will be used to fund new acquisitions in our core business and to optimize our capital structure through the repurchase of stock. We believe our focused strategy is right for GPU, for our stockholders, and for our customers." Levy adds, "GPU is positioned to become a premier player in the newly evolving part of the business."

Chief Financial Officer Bruce Levy

"Earnings are growing at about 8 percent... the ability to grow earnings is really the key to success at GPU."

ESTABLISHING A GLOBAL REACH

GPU is building strength worldwide, with GPU International Group (GPUI) expected to represent 17 percent of the company's annual earnings in 1999.

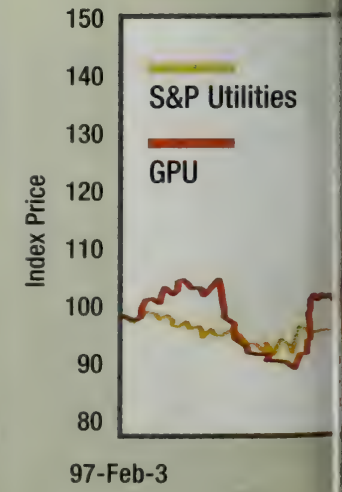
United Kingdom: In 1996 GPU and Cinergy Corp. jointly purchased Midlands Electricity PLC, an electric utility in central England. That utility had operations in the regulated distribution area as well as the highly competitive supply business. In 1998, GPU sold the supply business of Midlands to National Power PLC, allowing Midlands to concentrate on its regulated distribution business.

Australia: In another strat move in 1997, GPU sold it percent share of Solaris Po an electric distribution ut and acquired the much la GPU PowerNet, a high-vol electric transmission comp serving the state of Victori population base of 4.5 mil people.

South America: announced in December 1998, the acquisition of Emde a holding company that o three electric distribu companies in northwest Argentina.

NEW BUSINESS OPPORTUNITIES

In continuing its strategy horizontal growth, GPU is p suing ancillary businesses



GPU Strengths: Action, Focus, Results

ment its focus on infrastruc-
. Through GPU Telecom,
company is providing for
physical assets of telecom-
nications companies. Similar
vities are underway in
stralia. Through GPU
anced Resources, the com-
y is participating in the retail
rgy marketing in the Mid-
ntic States of the U.S.

aggressively pursuing new
portunities that support its
egy to focus on infrastruc-
, GPU expects to be a mar-
leader that will continue to
duce solid returns for its
eholders.

nalysts are impressed with GPU's clear irection and success.

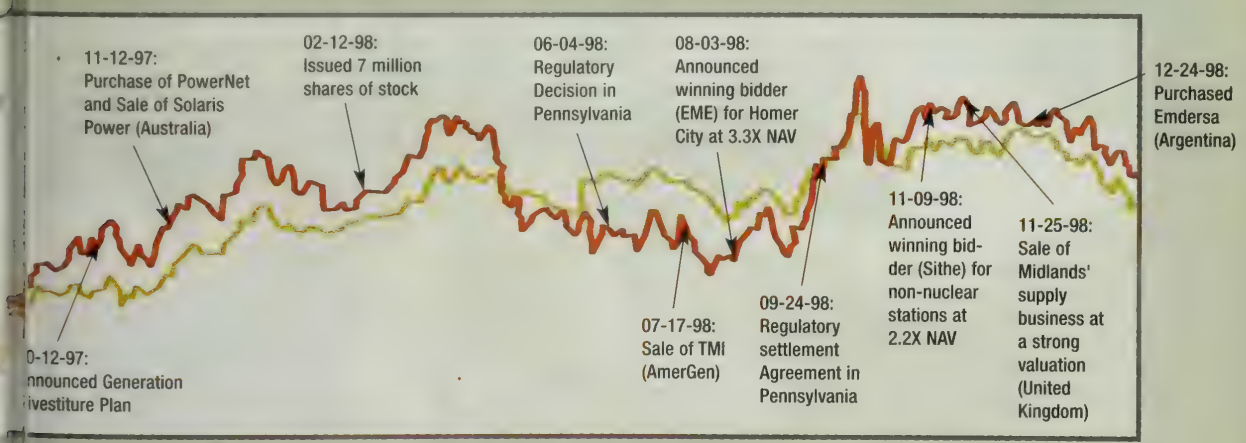
THE WORD ON THE STREET

Ernie Liu, Managing Director at Goldman Sachs, notes that the company's actions over the past year have been applauded by the stock market. "Specifically, GPU was among the first in the eastern U.S. to announce its intention to divest its generating capacity base. It was also the first U.S. utility that has taken a substantial stake in a foreign-based transmission utility."

Steven Fleishman, First Vice President, Global Securities Research, Merrill Lynch, adds that GPU received favorable prices—well over $500 per kilowatt-for its non-nuclear generating assets—and reduced its risk considerably by selling Three Mile Island. Fleishman notes, "GPU is likely to expand its reach in markets like the U.K. and Australia in order to capitalize on the overseas infrastructure investments."

Liu concludes that as the stock market has the potential to be more volatile in 1999, the utility sector—and GPU itself—will be seen as attractive investment choices. "When investors search within the U.S. utilities, I strongly believe that GPU will be one of the preferred stocks to buy. This is in large part because the company has been whittling away its biggest risk operations, and because the company is one of a shrinking group of choices that is still able to show steady dividend growth. That will help make the case for a total return for GPU that I believe will be very competitive."

FORMANCE OF GPU AND THE S&P ELECTRIC POWER INDEX



What's Next

**GPU's strategic direction is clear.
The company is focusing on the business it knows best:
the delivery of energy and infrastructure services.
The activities of the last two years are evidence of GPU's business plan in actio**

Industry change is presenting a variety of business prospects. New markets are being created by deregulation in the United States and by privatization around the world. GPU is pursuing these opportunities with a yield oriented, low risk strategy with sustained dividend growth. The infrastructure business is profitable today, will grow tomorrow, and offers a platform for enhanced business scope.

With GPU's well-developed skills at designing and implementing infrastructure management processes, the company is not constrained by its physical assets as a platform to new market opportunities. GPU can export its capabilities and operational excellence to non-contiguous markets. The operating successes at GPU International are evidence of this strategy, as is the company's solid performance in recent years.

GPU has focused on the importance of the dividend to its investors, and has produced steady dividend growth of three percent over the past two years. Both Hafer and Levy are confident that GPU has continued dividend growth potential moving forward.

"There is no doubt," concludes Hafer, "about our focus and drive to become a world-class infrastructure company. What has made us unique and rare among traditional utilities is the fact that we have taken decisive steps to implement that strategy. We're willing to grow our infrastructure business domestically and anywhere in the world, in countries that meet our screening criteria to provide a reasonable return for our shareholders."

**For further information go to:
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unkies reuse discarded medical equipment—and it urns out maybe you do, too, courtesy of cost-cutting hospitals.

Blood money

y Neil Weinberg

HE ELECTROPHYSIOLOGY atheter is a long, wiry device hat travels an intrusive, tensely personal path hrough a patient's groin and to the heart to monitor its nctions. After a single use, he instrument, which costs veral hundred dollars, is supposed to get thrown out.

But a third or more of U.S. ospitals routinely reuse disosable catheters and other edical instruments approved r one-time use only. Without much federal oversight, gainst devicemakers' advice d in the absence of any dustry standards, hospitals ke the gadgets, apply toxic emicals and high temperares to clean and sterilize hem, then use the instruents on other patients.

The little-noticed practice vers upwards of 1 million evices each year, a small share f all disposables and an veryday result of the cost-utting pressures of managed are. It is becoming so comonplace that a burgeoning reprocessing" industry has merged to serve the hospitals hat do it—despite a dearth of ard scientific evidence indiating whether it is safe.

That has sparked a subrranean debate that few eople in the medical indusy are eager to air in public. Hospitals defend the practice as prudent and harmless. Devicemakers such s U.S. Surgical and Johnson & Johnon generally refuse to discuss the natter publicly, but some of them are uietly lobbying the Food & Drug dministration to take a harder line on reprocessors."

MICHAEL J. PRICE

Turning throwaway devices into profitable products at Vanguard Medical Concepts in Lakeland, Fla.
Supporters call it necessary cost-cutting. Critics fear it hurts patients.

The cleaners, for their part, say the device companies are raising false alarms to protect their sales. Caught in the crossfire are patients.

"We're doing it on the backs of people who didn't volunteer to be in a research project," says Rita McCormick, an infection-control practitioner at the University of Wisconsin Hospitals & Clinics.

"The hospitals are looking to save money. Reprocessors see profit potential. The devicemakers are worried about their livelihood. What happened to worrying about the patient?" says Marimargaret Reichert, a nurse and

president of a medical safety consultancy in Olmsted Falls, Ohio, who has studied the issue since 1980.

No one can point to a surgical complication or an infection known to be a result of unauthorized reuse. But that doesn't mean such cases haven't occurred. Every year, nearly 2 million patients become sick and 90,000 die from infections contracted while in the hospital. Cause and effect are hard to connect. But note this: Another kind of device that *is* approved for reuse, the endoscope for looking inside the body and taking tissue samples, has been tied to several infectious outbreaks *(see box)*.

Even infections that show up quickly can be tough to trace. That's assuming hospitals want to trace them.

"How many health care workers are going to call the FDA and say 'A patient was injured because I used a device in an unapproved way?'" asks an executive at the Association of Disposable Device Manufacturers. The group was formed a few months ago to oppose reprocessors.

Makers—speaking privately to avoid bad publicity and possible lawsuits—tell chilling tales: the tip of a reused catheter nearly breaking off in a patient's heart; reprocessed items with traces of blood and bile; forceps with bleach residue from cleaning.

Many hospitals remain wary. "Most disposable products come in contact with fluids like blood, urine and spit, and weren't designed to undergo resterilization," says Dr. J.P. Abenstein, chairman of the equipment subcommittee at the Mayo Clinic in Rochester, Minn. "Given the fairly convincing literature that high temperatures and caustic chemicals change the nature of materials, I'd be leery of reusing disposables."

Reprocess contractors dismiss such concerns. By next year they expect their industry sales to double to $40 million and estimate that hospitals themselves sterilize and reuse far more gear than the contract reprocessors do.

Isn't it possible, they ask, that device manufacturers slap a "single-use" label on some products, such as plastic armboards used with intravenous drips, simply to goose revenues?

"Manufacturers don't have to provide any level of logic to prove something is not cleanable. The incentive is to *not* prove it is cleanable," says Mark Salomon, a vice president at Vanguard Medical Concepts in Lakeland, Fla., the largest outside reprocessor.

Some single-use designations seem aimed primarily at "planned product obsolescence," says Elizabeth Stoneman, an executive vice president

Does safety sell?

KATSUMI ONEDA HAS SPENT the 1990s trying to sell a medical device so seemingly simple and so clearly beneficial that he should be rich by now.

Instead, the Natick, Mass.-based company he cofounded in 1990, Vision Sciences, is mired in losses. It makes flexible endoscopes, gizmos with a long, rubber tube lined with fiber optics and fitted with a lens to let doctors peek deep inside the body.

Plenty of bigger companies make endoscopes, but Oneda's gadget has a twist: a disposable, sterile sheath that permits the scope to be safely reused. That should have been a prime selling point. "I thought I would be a hero," says Oneda, ex-president of Pentax's U.S. endoscope unit.

Not exactly. After going public in 1993 to raise $27 million, Vision Sciences found few customers. Doctors and hospitals called the sheaths unnecessary. The U.S. government agreed, refusing to cover the costs of the $55 sheaths for Medicare patients.

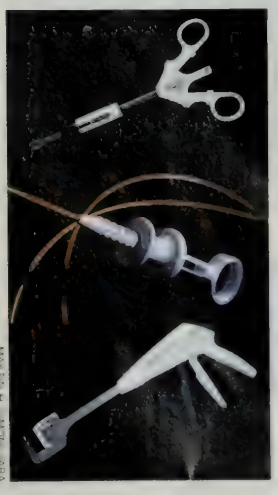
Yet the data on endoscope contamination are of concern. In 1991 the FDA examined "clean" endoscopes at 26 medical centers and found 24% of them were growing bacteria. Since then, other studies have documented that dirty endoscopes have transmitted tuberculosis and hepatitis B and C, as well as salmonella and E. coli infections.

Only 28 cases were reported from 1988 to1992, of an estimated 40 million endoscopies performed. But infections can be hard to spot, and "many doctors don't report this kind of thing," says Dr. Fred E. Silverstein, an inventor of the disposable sheath.

Vision Sciences is stumbling along, with $8 million in sales last fiscal year, 40% of that from industrial scopes for airplanes and the like. On that volume the company lost $2.6 million. Chief Executive Oneda, 61, has gone without a salary for nearly three and a half years.

Still, he hasn't given up hope that the medical community will change its mind. Japan's Olympus, with 70% of the $500 million flexible endoscope market, has filed patents that indicate it's working on its own sheath.

–ALEXANDRA ALGER



Highly invasive, repeatedly used

Commonly recycled disposables	Use
Electrophysiology catheters	Cardiac testi
Sequential compression devices	Impr ing cu n
Biopsy forceps	Rem ng t ss ples
Pulse oxymeter sensors	Testi g blood el
Laparoscopic instruments	Minimally inva ery
Balloon catheters	Dilating coronary
Drills, bits, blades	Orthopedic surgery
ERCP catheters	Removing gallstones

Source: Association of Disposable Device Manufa

At least a third of hospitals ignore makers' warnings and recycle disposables—without telling patients.

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Paragon Reprocessing Services in Little Rock, Ark. Sequential compression devices—air-filled plastic sleeves that slip over a patient's limb after surgery to improve circulation—are labeled single-use but have been reprocessed for years without any problems.

The disquieting problem, however, is the lack of assurance that all reprocessing is entirely safe. "There is a common yet unfounded belief among some health care workers that many devices sold as single-use can be safely and effectively reused," says ECRI, a nonprofit in Plymouth Meeting, Pa.

France has banned the reuse of disposable medical devices. In Australia Dr. Peter Collignon conducted a hospital survey a few years ago and concluded that almost 40% of hospitals reuse disposable devices, that 13 of the 14 most commonly recycled gadgets are unsafe and that, for every 1 million surgeries, perhaps 40 people get infections as a result.

So where is the FDA? A top official bluntly told a medical conference a few years ago, "The whole area of reprocessing of single-use items scares the hell out of me." But the agency has done little to weigh in.

When hospitals reuse disposable instruments, "they go beyond the intended use on the label—and at their own risk," says Larry Spears, a director of enforcement at the FDA. But he adds: "The FDA doesn't regulate hospitals." They are on their own—which means, so are patients.

The FDA requires outside reprocessors to register with the agency, but it admits that not all have done so and that it doesn't know how many are out there. Nor does registration guarantee anything much regarding quality, though some hospitals may believe otherwise.

Says the FDA's Spears: "Hospitals might think registration with the FDA means we somehow have evaluated products, either through testing or paperwork, when in fact registration doesn't mean either. It doesn't carry a lot of weight."

The FDA's spot checks of reprocessors aren't any more encouraging. The agency sent Vanguard a warning letter in 1996 for failure to have written procedures to prevent damage from hazardous cleaning materials; inadequate testing of heart catheters for infectious material; and mislabeling.

Last year the FDA visited Masterile Reprocessing in Warrenville, Ill., and found the firm failed to do any structural testing of its reprocessed instruments and had done no studies to determine how many times a device could be safely reused.

Illinois State Senator Evelyn Bowles has tried, with limited success so far, to regulate reprocessed disposables in her state and wants to require informed consent from patients. Similar effo are getting underway in Florida.

In the meantime, it will be up patients to figure out where to dr the line on single-use versus reuse. a cardiologist or some other importa person undergoes a procedure, t hospital uses new instruments," no Reichert, the nurse in Ohio.

That doctors don't want this st reused on them should tell y something. Try writing a ban unapproved reuse into your ne surgical consent form. It would interesting to see what the hospita reaction is. ■

You're entering middle age with worries about heart disease but no evidence of it. What kind of tests should you get?

Plaque detector

By Nikhil Hutheesing

MY LAST BLOOD TEST ended in a statement that stunned me: "This patient's score is associated with the highest coronary heart disease risk." My low-density lipoprotein—the bad cholesterol that clogs arteries—was high in relation to my high-density lipoprotein—the good cholesterol that clears clogs away. The ratio should fall between 2.5 and 4.0; mine came to 7.9.

I am only 36, but I already have another risk factor: family history. My father survived a heart attack at 59; his mother died of one at 60. My cardiologist told me to take baby aspirin thrice weekly (to avoid blood clots) and a cholesterol-lowering pill every day. Then, to see whether more steps were warranted, he ordered a thallium stress test—a four-hour ordeal.

A radiologist injected me with radioactive thallium to light up the blood flowing through my arteries. In 12 minutes a gamma camera to 64 snapshots for a one-second movi Next, to make a comparable movie my heart under stress, the radiologi stuck EKG electrodes to my chest a

The author of this article getting an electron scan **It takes ten minutes, $500—and no needles.** ■

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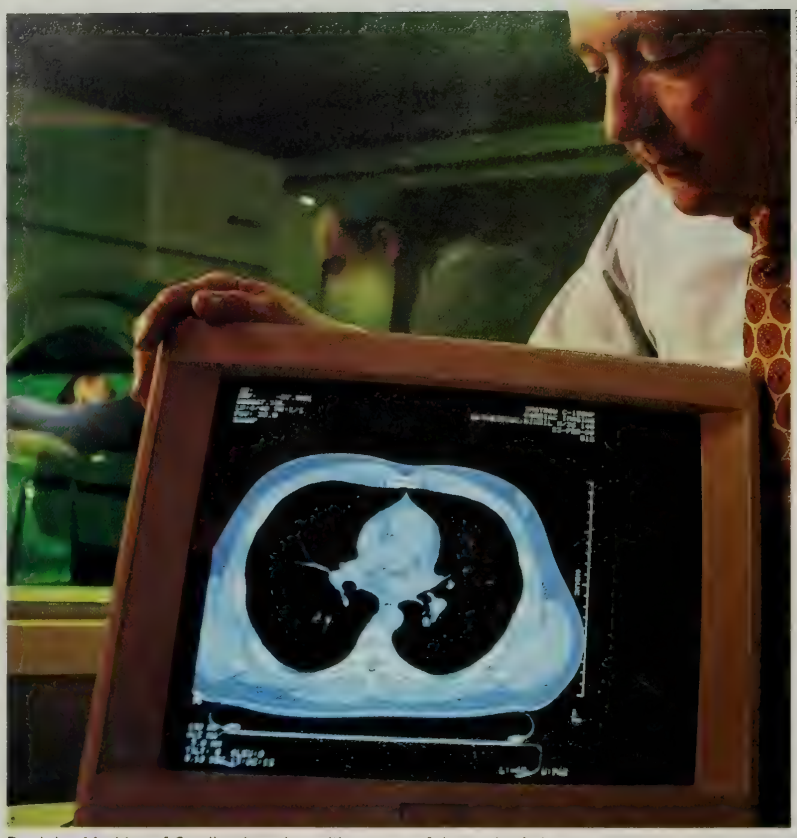
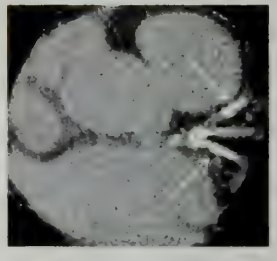


EDWARD SANTALONE

Dr. John Markisz of Cardiac Imaging with a scan of the author's heart
He found no plaque, as in the calcium-encrusted heart to the right.



injected a technetium agent into my arm as I ran a treadmill. Then he gamma-graphed me again.

Cost: $1,700. Result: no evidence of heart disease. Degree of reassurance: negligible. A negative result doesn't guarantee that you won't have a heart attack while walking out the hospital door.

"There is a high incidence of these tests ordered by doctors," sighs Dr. Thomas Behrenbeck of the Mayo Clinic. "Unfortunately, they don't help in prevention."

The reason? Stress tests look not at the buildup of cholesterol-laden plaque but at the slowing of blood flow such buildup causes. Slowdowns show up only when arteries have narrowed by 50% to 70%—way past the danger point.

"A 35-year-old who sits on his butt all day, eats corned beef sandwiches and has high cholesterol could have a completely normal stress test," says John Rumberger, a cardiologist at Diagnostic Cardiovascular Consultants in Columbus, Ohio. "But he could still have severe plaque in his arteries waiting for his 42nd birthday, when one will rupture and kill him."

What, then, could possibly justify a young, asymptomatic person taking a stress test? Only this: It screens for the 5% or so with risk factors like mine who have full-blown heart disease and might need surgery. Such patients would then become candidates for an angiogram, a $4,000 test in which a catheter is snaked through the coronary arteries and used to inject X-ray dye to outline the blockages clearly. Doctors wouldn't give just anybody an angiogram because it has a 1-in-200 chance of dislodging plaque and inducing a heart attack.

Now comes a much safer techn ogy that requires no injections a poses no risks. Called electron-be computed tomography, it searches the calcium crust that forms plaque. It uses electron beams to ta 40 pictures of a number of cro sections of the heart and feeds t data into a computer where images the heart pop up almost instantly.

The machine, called the Ultraf CT (for computed tomography), made by South San Francisco-bas Imatron and costs $1.75 million- about four times as much as gamma camera, which explains w only 50 of them are in operation the U.S. so far.

The test, taken at Cardiac Imagi in New York City, was simple. A rad ologist told me to hold my breath f 30 seconds, and images came up o computer monitor almost instant Verdict: no plaque.

There is one significant limitatio Unless you're like me and have ob ous risk factors, the test will do lit good for men under 40 or wom under 45. Reason: Even if you ha some fatty deposits at an earlier ag calcium isn't likely to show on them.

It's cheap to operat so a test costs t patient only abo $500. (About 80% health insurance a HMO plans will cov the procedure referred by a phys cian.) You could seeing more of the machines soon: General Electric starting to market Imatron machine.

Electron scanning should ma stress testing a rare adjunct to dia nosis, rather than its main weapo Doctors should miss far fewer at-ri patients. Just as important, its lo cost and high accuracy should enab cardiologists to fine-tune treatme by furnishing them with freque progress reports.

A quarter of the U.S. adult popul tion suffers from coronary artery di ease. The first and only symptom f 150,000 of them every year is deat This improvement in early detecti should reduce that number.

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The market wreaks quick vengeance on a technology company that misses a step. Xircom almost didn't survive.

The cards are redealt

By Anne Linsmayer

FALL BEHIND in the computer business for just a microsecond, and your business might disappear on you. Dirk Gates, 37, cofounder and chief executive of Thousand Oaks, Calif.-based Xircom, knows this all too well. The maker of plug-in PC cards for laptop computers got into trouble in 1995, when its 70%-plus market share shrank overnight, to 20%. "In a two-quarter span, we basically gift-wrapped half our share and gave it to 3Com," Gates says.

What went awry? Xircom botched a product release. As it readied a new version of the cards that plug in to laptops to let users link up with their office network, it discontinued the predecessor, assuming customers would upgrade. Wrong. Many were irked, and they took up new cards from 3Com, most notably its Megahertz cards.

On sales of $120 million in 1995, Xircom posted a loss of $59 million. But Gates survived for another hand of cards. He stopped using subcontractors and pulled all his in-house manufacturing in 1996, setting up a plant in Penang, Malaysia. That lowered labor costs, shortened the supply chain and shrank inventory. Xircom also shed two wireless units.

Xircom is hitting the jackpot once again. Its new hit product is the RealPort. Priced at $150 to $350 and on the market only six months, the RealPort line helped Xircom produce 50% sales growth, to $276 million, and earn $18 million for the fiscal year that ended last Sept. 30. The RealPort could provide as much as 70% of revenue in the current fiscal year, driving total sales past $400 million. Xircom's once-battered stock recently hit $46, an all-time high since going public in 1992.

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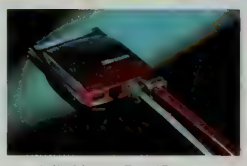

Xircom's Dirk Gates; older PC card (left) vs. RealPort

Look ma, no cables! And fewer hook-up hassles.

The attraction of RealPort: It eliminates cumbersome connector cables that PC cards typically use. Broken or lost cables are a big hassle for remote users who link up over phone lines to their offices or the Internet. The 3Com card cuts cables, too, but uses tiny pop-out sockets for plugging in the phone line. Xircom lets the phone line, network cable and even cellular phone cord plug directly into the card itself. And the RealPort has fewer parts, helping boost profit margins 11 points, to 41%.

Even Gates' rivals at 3Com are taking notice. "They have a flash in the pan right now," sniffs 3Com Marketing Vice President Richard Redelfs.

So far, so good. But you can't blink in this kind of market. A new challenge looms. Laptop makers began to integrate the functions that Xircom hands into the computer itself. Could this slow the need for PC cards? "More of the technology is being embedded in the laptop. This doesn't play well for Xircom," 3Com's Redelfs says.

Xircom's Gates, of course, is betting otherwise. For one thing, his customers are heavy strong technology managers at companies like Sears, Roebuck & Co. and Lexis-Nexis will order PC cards in bulk from resellers. They like choosing their own options rather than having built-in features forced on them, Gates says.

"For the small office/home office market, built-in solutions do make sense. But that's not our market," he says. There's Nozick, an analyst with Mobile Insights in Mountain View, Calif., adds, "Corporations don't like to be made to standardize."

Just in case, Gates is also working with laptop manufacturers to support internal modems that might otherwise threaten his comeback.

Gates says the real boom in his card business has yet to come. Japan, where Xircom opened a sales office last fall, has 25% of the world's notebook users—a large and waiting market for the RealPort. He isn't worried about his dependence on the hot new product. "Focus is a good thing," he says. At least, it is until the market zigzags on him yet again—then he'll need a new focus. ■

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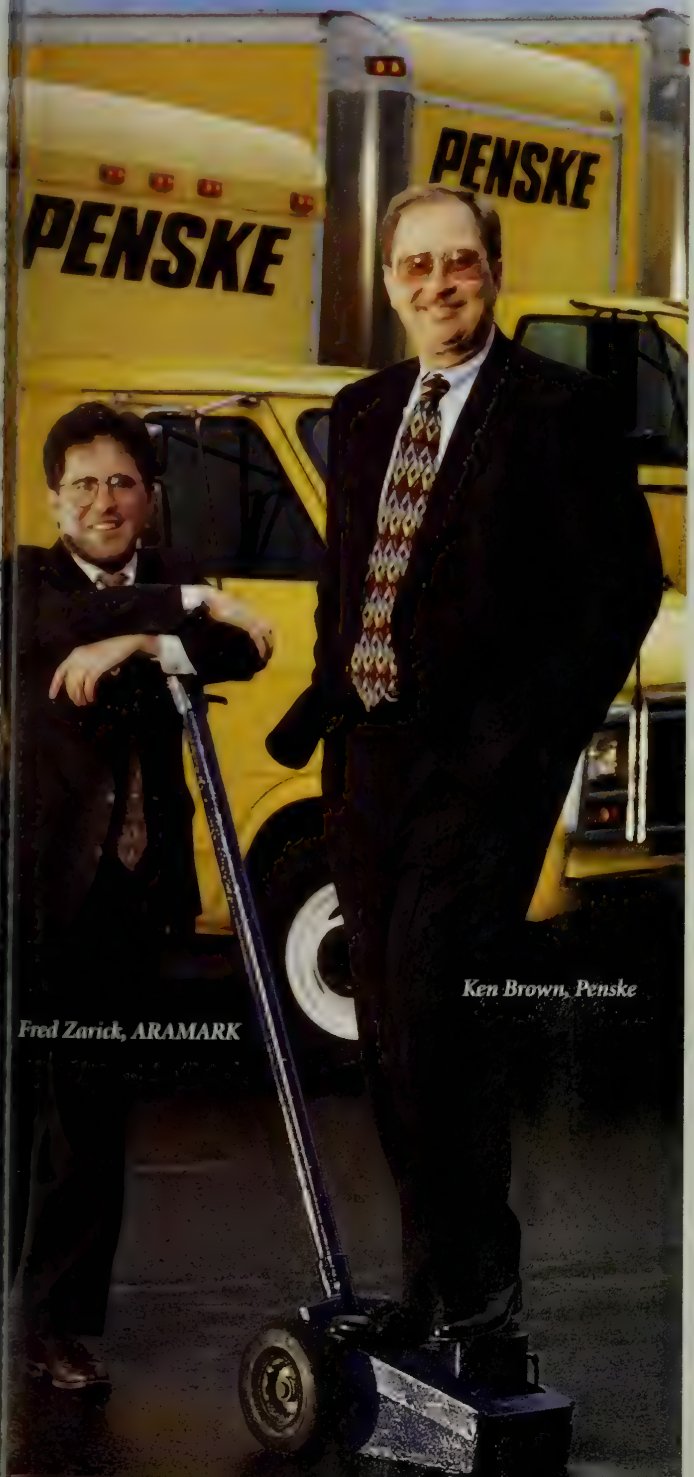

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By Stephen Manes

Project that propaganda!

POWERPOINT PRESENTATIONS are the power neckties of modern business—annoying, ugly and useless, but sometimes necessary for survival.

So if you must give one, you might as well do it in a big way rather than cajole a roomful of people into huddling around a puny computer screen.

The solution is a digital video projector that can spray propaganda from your PC onto a screen or wall. But projectors have been among the very few peripherals that typically weigh and cost more than the computers they hook up to.

That's beginning to change. Last year Lightware's VP800 model was considered a price breakthrough at about $2,000, but its 9-plus pounds and sizable bulk made it a bit awkward to lug around. Coming soon is Lightware's new $3,000 Scout, which weighs only 5 pounds and is touted as the world's smallest projector. It will also be available from Proxima as model SP1.

The late prototype I tested was decent enough—but there's something even better: InFocus Systems' new LP400, which weighs about 2 pounds more but simply blows the Scout right out of the water.

Better yet, these models aren't just about PowerPoint: When the projector's not busy in the service of business persuasion, you can tote it home, hook it up to your VCR or DVD player—and use it for big-screen video. Though neither unit's TV picture is close to perfect, I found the giant images no worse than the ones you see in many sports bars. And the playback from some computer DVD players *(see sidebar)* can be downright stunning; here, too, InFocus came out way ahead.

Back to business: Both the Scout and the LP400 can show presentations in a room with open windows, but the picture from the InFocus model is bigger, brighter, more evenly illuminated and more consistently focused, with less-obvious pixels (the tiny dots that form the on-screen image).

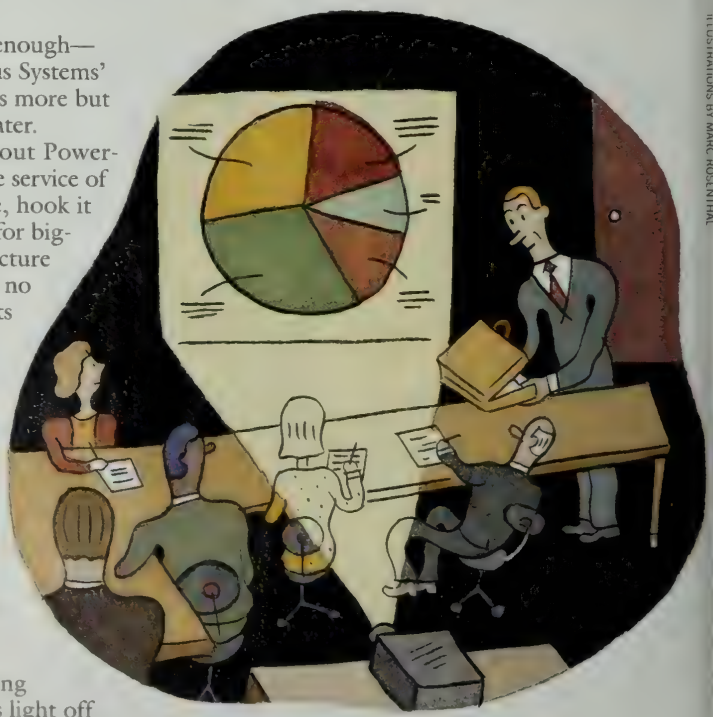
That's largely because of Texas Instruments' Emmy-award-winning, belief-defying Digital Light Processing system. It reflects light off a panel of half a million microscopic mirrors that flip back and forth thousands of times a second, a technological tour de force that's finally becoming affordable. The Scout's LCD system just doesn't measure up.

Both units produce 800-by-600-pixel images that make type fonts in presentations look a bit jagged but acceptable. InFocus offers a similar model that includes a zoom lens and even greater brightness, along with smoother 1,024-by-768 resolution, but it sells for twice as much as its low-end brother.

Neither system delivered colors that matched my laptop's screen, but in practice you probably won't notice the difference. Both offer all sorts of fine picture adjustments, but neither could correct for the "keystoning" distortion that occurs if you tilt the projector up or down to fit the big screen. Each has a front foot to adjust that tilt but no corner adjustment to align the picture horizontally.

InFocus can play audio from a single speaker; Scout offers stereo and louder volume, and its fan is quieter. Scout comes with a remote control and uses a standard video cable—it would be easy to find one in a pinch if you forgot to toss yours in the bag; InFocus requires a proprietary cable and charges extra for a remote.

Mated with a 3-pound subnotebook, either unit



ILLUSTRATIONS BY MARC ROSENTHAL

n Manes, a computer industry journalist since 1983, is the coauthor of *Gates*, a biography of Microsoft's chairman.

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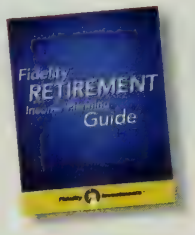

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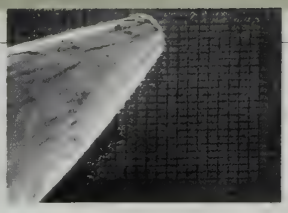

Micromirrors on a chip **Projecting images? Texas Instruments does it with mirrors.**

becomes a presentation package not much heavier than some pricey notebook PCs.

As with most everything digital, projectors will keep getting cheaper and better. Sometime later this year a new standard for digital video ports will take hold. Designed primarily for flat-panel LCD screens, it will also be particularly helpful to new projectors that include it. By eliminating the need for analog-to-digital and digital-to-analog video conversions, the new connections should mean lower costs and higher quality in projectors of the future.

Say, would you like to see my PowerPoint presentation on that? ■

Mightier than the multiplex?

DIGITAL VIDEO PROJECTORS have a marvelous but little-known trick up their sleeves: Coupled with the right DVD equipment, they can make movies look better on a screen than anything short of a wildly expensive home theater system. The experience isn't quite high-definition television, but you might be hard pressed to tell the difference.

The secret is mostly in the way computers paint their pictures, which differs significantly from standard TV sets. On a TV screen, the scanning electron beam composes the picture with two interlaced "fields" of horizontal lines. First the beam paints the odd lines; then it returns to the top and fills in the even ones. In the U.S. and many other places the combination produces a full "frame" image 30 times a second.

On a computer screen, by contrast, the electron beam scans progressively down the screen, painting all the lines, not just the odds or the evens, and returns to the top only when the whole image is complete. That happens 60 to 100 times a second.

Most movies are shot on film at 24 frames a second; they're essentially progressive, too. To stretch a movie's 24 frames into 30 for TV, every second frame is kept on the screen for three TV "fields." That often puts scan lines from two different movie frames on the screen at once, introducing distortions.

The information on movie DVDs is divided into scan lines for interlaced playback on standard TV sets and consumer DVD players. But since each set of scan lines, odd and even, comes from the same frame of film, a smart, computer-based DVD decoder can stitch the alternating lines together into complete frames and send them to the monitor progressively.

This eliminates many subtle and not-so-subtle artifacts of interlaced scanning and TV signals, and it also makes movies what they originally were: a series of integral frames displayed sequentially.

Unfortunately, the dirty little secret of computer-based DVD is that most hardware and software decoders currently on the market do a lousy job of playing and deinterlacing movies properly. On a good display, these second-rate solutions can look far worse than on TV, because the interlace artifacts appear so clearly and so close. One telltale sign: titles that jitter.

When I played movie DVDs with the Quadrant card that came in a top-shelf Dell Pentium III machine, video projectors mercilessly revealed just how dreadful they looked. The software-based ATI decoder in a new 500-megahertz PIII Hewlett-Packard Pavilion deinterlaced movies correctly; too bad it often lost picture or sound entirely.

The best DVD decoder I've tried is the Hollywood Plus card from Sigma Designs. It's included in add-on DVD player kits from several vendors and can be tricky to set up, but once you have it adjusted properly, it can make DVD movies look like real film.

Alas, though the current units work well on standard monitors, the otherwise fine picture is marred by a subtle pattern of rippling vertical lines on projectors and LCD displays. The next revision of the boards should fix the problem.

Sigma-decoded DVDs of films looked particularly dazzling on a big screen with the InFocus projector. But video-originated titles didn't look quite as good because of the technical hurdles in playing interlaced videos on a progressive-scan screen.

Presumably computer makers will get DVD movie decoding right sooner or later. One day many DVD players may even be able to output progressive video. Once those things happen, the best way to look at movies may well be to watch them projected at home on a screen not much smaller than the ones at the 50-plex. –S.M.

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By Guy Kawasaki

Time to money

Create the illusion of scarcity—that there are more investors willing to put in money than you're willing to take.

IT TOOK THE TELEPHONE more than 50 years to reach 90% penetration of American households; beginning in 1980 it took the VCR only 18.

Time is more than money; time is wealth. Today's Internet market will pass you by if it takes months just to raise money. This is how to speed up the process.

■ Flow with the go. In Silicon Valley a handful of firms handle the lion's share of high-tech startups. They incorporate the new companies, create the venture capital funds, handle the acquisitions and take the hot companies public. They're expensive but worth it: Since they do high-tech work all the time, things go faster and easier. The money you save by using Uncle Joe the divorce lawyer is a pittance compared with the cost in time and money required to undo his mistakes.

■ Don't outsmart yourself. Many an investor has walked away from—or spent three months fixing—deals because of crazy capitalization schemes. Complex antidilution rights, warrants, rights of first refusal and the like cause these problems. If you have a messed-up capital structure, you'd better have the world's greatest business idea, because investors have plenty of other opportunities.

■ Be brief. One-page executive summaries, 20-page business plans, 20-minute presentations. Got it? Stick to the basics: problem, size of market, product, customer, team and money. I've never heard of a business that didn't get funded because its plan was too short.

■ Create the illusion of scarcity. If there's anything an investor hates more than a lousy deal, it's not getting in on a good deal. Get a bellwether investor. This is someone who's famous and brings your deal instant credibility and hotness. Create the illusion that there are more investors willing to put in money than you're willing to take. If you have the luxury of picking investors, pick the ones who can add the most value to your business in terms of connections and credibility.

■ Float like a butterfly. When a potential investor offers a suggestion or criticism, either agree, find common ground or postpone a response until you can obtain more information. Many entrepreneurs are so focused and passionate that they debate every suggestion and criticism. They come across as headstrong, unable to budge and unwilling to take advice.

■ Acknowledge the enemy. And make up an enemy if there isn't one, because a warning bell goes off in the head of sophisticated investors when they hear, "We have no competition."

■ Look for value, not valuation. In 1982 the founders of Wyse were looking for venture capital; they received two bona fide offers. One offer was at a $6 million valuation; the other was significantly higher. The higher valuation would have meant much less dilution of their ownership—which naive entrepreneurs think is the Holy Grail of capital raising. But the wise founders took the money from the firm offering the lower valuation because its money came with incredible connections: Kleiner Perkins Caufield & Byers. Wyse went on to become a $500 million company.

■ Take the money when it's offered. Eugene Kleiner, the founder of Kleiner Perkins, put it this way: "The time to eat appetizers is when they're being passed around." It means take the money that's being offered instead of hoping for a higher valuation and less dilution later.

■ Keep spending low and cash balances high. "The leading cause of failure among startups is death." This is Johnson's Corollary to Kleiner's Law of Appetizers. It's named after Craig Johnson, the founder of Venture Law Group. Few companies fail when they still have money in the bank. Live to fight another day or until the world recognizes your market.

■ Ask for less than you need. In any business except high technology, you should ask for more money than you need. However, the opposite is true in this market. If you need $1 million but would like $4 million, ask for $2.5 million. When you've raised $2.5 million, you're a hot item, and it's easier to raise the additional $500,000—and even more. By contrast, if you ask for $4 million and raise $2.5 million, the $2.5 million may get nervous and back out. ■

Guy Kawasaki is the chief executive officer of rage.com, a Palo Alto-based startup capital company, and author of *Rules for Revolutionaries.* Web site: www.kickbutt.com

Joseph R. Garber

Tiny machines, big dreams

How can you make money from something that you give away? Cygnus Solutions thinks it has the answer.

I FIGURE I'VE GOT about 40 computers scattered around my home. Am I the Imelda Marcos of PCs? Nope. I have only two of that variety of thinking machine. The rest of my computers—actually microprocessors—are hidden in appliances, telephones, cars, programmable thermostats and all the other machines controlled by the kind of cheap, reliable chips called "embedded processors."

Where there are processors, there are operating systems. So I have about 40 operating systems running in my house, all but two of them pretty darned small.

But the market is big enough: Ninety percent of the world's microprocessors are used not in computers but in appliances, industrial controls, medical devices, automobiles, avionics, office machinery and the like. The companies that peddle embedded operating systems sell more than $1 billion worth of software a year. (The potential market is even bigger because do-it-yourself operating systems are installed in about half of the gear controlled by embedded processors.)

Growing at 18% per year, it's also one of the most fragmented markets around—I count 23 competitors; some analysts claim there are 100-plus.

Why so many? Embedded processors are special-purpose chips; what's designed for your toaster isn't much use in your cell phone. And so a whole bunch of niche outfits have sprung up to satisfy the custom software requirements of more kinds of hardware than you can shake a stick at. A few are publicly traded: At $120 million in sales, Integrated Systems is the largest; Wind River, with revenues of $92 million, is number two. They are the Microsofts of microscopic software.

And like Microsoft (whose Windows-CE is an aspiring embedded-system), they have a problem. In the PC world that problem is an operating system called Linux *(see* FORBES, *Aug. 10, 1998)*. Unlike Windows, Linux is "open-source" code—free to everyone. It is the creation of hackers who think that you can make better software if you toss it into the public domain so that other hackers can tinker with it and improve it.

Although there are more than 10 million Linux users, most folks in Silicon Valley look askance at free software. Not unreasonably, they ask: How can you make money from something that you give away?

Privately held Cygnus Solutions thinks it has the answer. Best known for its Linux tool kit, Sunnyvale, Calif.-based Cygnus unveiled last November an open-source embedded operating system called Ecos (Embedded Cygnus Operating System). General purpose in design, the software can be shoehorned into as few as 600 bytes of memory or (for complex products like big-ticket industrial controls) deliver 50 megabytes worth of operating system horsepower.

While Cygnus gives Ecos away, it has kept for itself the trademark and control over new releases. That means Cygnus will always know more about it than anyone else. Knowledge being power, the way the company plans to turn a buck is by selling programming tools for Ecos. Tools are no small issue. In its initial release the Cygnus software has about 200 configuration points—think of them as multiposition software switches that give programmers countless possible combinations. Setting them by hand isn't easy; setting them with software is a snap—if you have the right software. Guess who wants to sell it to you? (And the support to go with it?)

Will Cygnus' strategy work? On paper, it makes sense. There aren't many manufacturers who would buy or build embedded operating systems if a good one were available for free.

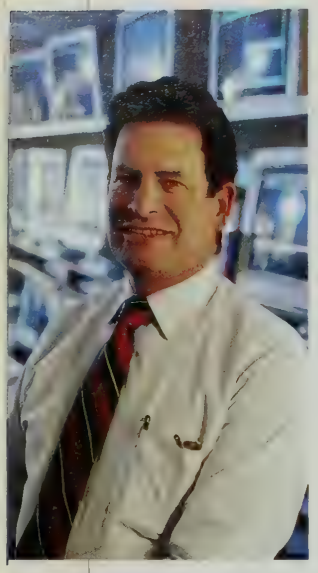
But the jury is out. About 10,000 programmers have test-driven Ecos so far. That's not shabby for four months, but small potatoes in the embedded-systems world—and very far from a market large enough to warrant the $3 million or so I estimate Cygnus, a $20 million company, spent creating the thing.

However, if Ecos takes hold, it may spell trouble for a whole bunch of embedded-systems software companies. Watch out, guys: Cygnus is one minisoft that wants to become a Microsoft. And it just may have figured out how to do it. ■

eph R. Garber's new novel, *In a Perfect State*, is published by Simon & Schuster, Great Britain. His e-mail address is garber@well.com.

By Kenneth L. Fisher

Why big gets bigger



The euro is no threat. It ensures a strong dollar and drives money into America's largest stocks.

THROUGH FEBRUARY the 25 U.S. stocks with the largest market capitalizations, namely, those at $91 billion and up, have gained a collective 2.8% in value. The Standard & Poor's index of 500 stocks is up 1%. Meanwhile, the Russell 2000 roster of small stocks is down a full 7%.

Wall Street's favoritism for huge stocks shows no signs of abating. Indeed, there is a powerful new force at work that should cause this trend to continue: the new euro currency.

In the first two months of 1999 the euro was down 7.5% against the dollar, from a value of $1.17 to $1.10. Unless you've been on Mars, media babble has probably brainwashed you to believe the euro is a competitive threat to the dollar. But how can that be if the euro falls like a rock? Fact is, the euro isn't a threat. It ensures a strong dollar and drives money into America's largest stocks.

The euro "contract" includes a no-back-out provision among its 11 members. If even one country pulls out for any reason, the whole deal falls apart. Imagine, for example, that one euro economy sinks into recession. Its politicians then blame the Eurobank, claiming monetary policy is too tight. If that country withdraws, the whole euro contract becomes void and must be renegotiated—a nightmare for the remaining 10 members and potential death to the Eurobank. It's hard to get agreement among 10 nations, and harder still to do it fast. Like all central banks, the Eurobank is self-interested. It cannot allow that to happen.

So the Eurobank must temporarily make monetary policy accommodative to what it perceives as the weakest economy among its members. As lon as it does so, it prints more money than America does and the euro is a weak sist to the dollar. How long is that? Remember, each of these 11 countries still has i own cash and monetary systems in place Until those disappear, in two years, it is easy for a country to pull out. The euro only a potentially strong currency startin in 2001, at the earliest.

Until then, euro-denominated interest rates will be artificially low. Europeans wi borrow at their banks at cheap euro rates turn around and buy U.S. Treasurys at higher U.S. interest rates, and pocket the spread—around 1.5 points today—as a fr ride. Any currency pro they make from the weakening of the euro icing on the cake.

This borrowing proc injects liquidity into U.S markets just as if the Fe were printing new dollars. And the buying makes the dollar strong This is just what has be driving the bull market. first wrote about this invasion of foreign money into America in my Oct. 20, 1997 column, long before the euro existed. Of course, there's a similar invasion from Japan.

Some of that money, either from the foreign borrowers or from those who sell U.S. Treasurys t the borrowers, goes into stocks. Which U.S. stock do foreigners buy? The most global firms, the ones they know, which a also the very largest stocks. So, as I've said fo years, for now limit your U.S. holdings to the largest stocks. The 25 biggest in market value are listed in the table. ■

Heard of these?

Company	Market cap ($bil)
Microsoft	$374.3
General Electric	328.7
Intel	199.9
Merck	194.1
Wal-Mart	194.0
Pfizer	171.2
Exxon	161.8
IBM	158.4
Coca-Cola	157.5
Cisco Systems	154.5
MCI WorldCom	151.3
AT&T	148.3
American Int'l Group	140.8
Lucent Technologies	133.6
Citigroup	133.5
Bristol-Myers Squibb	125.1
Procter & Gamble	118.8
Johnson & Johnson	114.8
BankAmerica	113.0
Berkshire Hathaway	107.3
Eli Lilly	103.9
SBC Communications	103.4
Dell Computer	102.0
Philip Morris	95.3
BellSouth	90.9

Data through 2/28/99.

Make no mistake: It's these U.S. companies—the very biggest—that foreigners want.

Kenneth L. Fisher is a Woodside, Calif.-based mone manager. His third book is *100 Minds that Made the Market*. E-mail: kenfisher@fi.com

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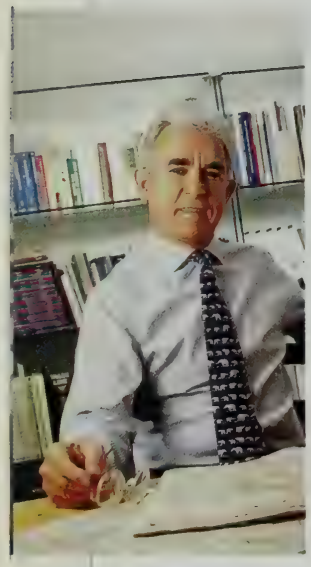
By Laszlo Birinyi Jr.

History's lessons



In 1990 commentators told investors to wait for a violent shakeout before buying. You'd still be waiting.

THE STOCK MARKET has started the year poorly. January through February saw days of 100-point gains and 200-point declines; earnings were inconclusive; technology was alternately strong and weak. Denver won the Super Bowl—and, oh, I am describing 1998, not 1999. I do so to remind you that this year's early volatility and concerns are similar to last year's, and do not foretell doom.

I am increasingly impressed with the value of history in the stock market and the general failure among investors to recognize it. Perhaps we face so much information that the events of a year ago seem ancient and uninstructive. But 1999 is similar to last year. I am not much concerned.

Last summer's market turbulence demonstrated investors' lack of historical awareness. I argued at the time that the troubles of August to October were similar to the fourth quarter of 1990: Investors were unnerved by exogenous events (the invasion of Kuwait in 1990; the devaluation of the ruble last year). They then waited for the other shoe to drop (the liberation of Kuwait; IMF or central bank action on troubled currencies). Events in 1990, in fact, were even more dangerous, with many war casualties possible and the fear that oil could reach $50 per barrel.

A failure to appreciate history asserted itself in 1990, as well, as professionals forgot or ignored another lesson: how bear markets end. In my recent meetings with money managers I have been handing out copies of a lead story in the Sunday business section of the *New York Times* from Aug. 15, 1982. On the previous Friday that year, the stock market (we now know) had bottomed and begun its multiyear run. But the analysts quoted in that *Times* story didn't see it that way. While they thought the bottom might be near, they agreed that we still had a final, violent phase and cathartic cleansing of portfolios to go through. Market bottoms, they said, require almost everyone to give up. The article's author, at least, noted that there had been no such total surrender in 1974.

In 1990, once again ignoring history, Street commentators urged investors to wait for a violent shakeout before buying. You would still be waiting.

You don't have to dig up old newspapers to find more such lessons. On the morning of Oct. 8, 1998 the stock market dropped more than 3%. That October morning we screened the database and found that in the few cases since 1990 when stocks had lost 3% in the morning, the market had either stabilized or rallied later in the day. That's what I told my customers, and that's what happened.

On Jan. 13 this year Brazil let its currency slide, and S&P futures dropped 25 points. Our database showed that in five similar instances the market had opened sharply down but tended to reach a bottom at ten o'clock, then rally 1.5%, on average, to the day's close. Now I will admit that the number of instances was woefully inadequate for a statistical analysis, but it at least provided a clue as to what to expect. What did happen on Jan. 13: The market opened down 260 points, bottomed at ten o'clock and then rallied 1.5% to the close. Such exactitude was flukey, I'll admit.

You may not want such detailed information, especially if investing is not your day job. But at times of market stress you always hear from some quarter that "things are different." Things are always different—the art is figuring out which differences matter. After the 1987 crash some analysts drew charts showing impressive parallels with 1929. But the important things *were* different in 1987, and so were the results.

Today I see nothing in the past that tells me the market has got to stop, to reverse or to pay attention to the fears that others have articulated better than I. Yes, stocks are expensive. Yes, the market is narrow. But go back a year, or two or five, and the same arguments were made with the Dow at 5000, at 3000—and so forth.

I still hold the growth stocks I have often mentioned, from IBM to AOL to the drugmakers. But so do most investors. So with new money, buy stocks more closely tied to the economy, which is doing better than expected. Buy the papers (International Paper and Georgia-Pacific) and autos (Ford is my first choice).

With the bond market looking shaky, utilities are down. Buy *Texas Utilities* (5.5% yield) or *Con Edison* (4.6% yield) if you are conservative or nervous. ■

Laszlo Birinyi Jr. is president of Birinyi Associates, a Greenwich, Conn.-based financial consulting firm.

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By Martin Sosnoff

Internet stocks for cowards

Putting aside the conversion feature, Amazon can borrow serious money cheaper than the U.S. Treasury can.

SOONER OR LATER Alan Greenspan may be right that Internet stocks are the new national lottery. It depends on what you mean by "Internet stock." Top players like America Online, Yahoo, Amazon.com and Lycos are in the sweet spot of their development, where quarterly revenue gains of 15% or so portend serious earning power. But after penciling in revenue forecasts even greater than those of the few analysts brave enough to print their numbers, we find the stocks now selling for 50 to 60 times the projected earnings of 2003. So Greenspan is wrong. It's not a lottery, but pie in the sky. At least you can win a lottery.

However, there's pie and there's pie. A few months ago the market capitalization of Yahoo came to ten times that of Lycos. We decided Yahoo was, say, only two or three times better than Lycos. So we bought Lycos on a theory of convergence. In a bull market you can usually get away with this risky strategy.

We got lucky when Excite, a portal property comparable to Lycos, sold out to At Home for $6.7 billion, confirming our valuation on Lycos. Then Lycos rose 30% when Geocities, a Web page hosting operation similar to one run by Lycos, sold to Yahoo for $3.5 billion in stock. If Lycos' growth paces Yahoo's, our convergence theory will be vindicated by the nerdy rabble who play Russian roulette with these stocks. Meanwhile, Barry Diller's proposed USA Networks/Lycos merger pegs Lycos fairly at its current $90, where I'd buy it as a long-term play.

Amazon will remain in the investment phase of its development for the foreseeable future. Morgan Stanley just raised $1.25 billion in convertible bond capital at 4.75% for Amazon, which means, putting aside the possibility that the conversion feature will somehow end up in the money, the bookseller can borrow serious money cheaper than the U.S. Treasury can. Will it one day look like Wal-Mart—profitable and fairly priced? Let's hope so. Now, it's overpriced.

As for AOL, it is selling ads at the pace of $500 million per year. Nobody dared forecast this level even a year ago. Three years ago Wall Street thought AOL was near insolvency. The stock has gone around the clock 11 times since then. I've been in and out. I'd hold it now but wouldn't buy.

Working down the Internet hierarchy, you have the major media players, who simply missed the boat. Disney has Infose and Time Warner has Roadrunner—small potatoes. AT&T's upcoming marriage with Tele-Communications, Inc. may make it a player in local broadband service. Thanks the Internet, the cable industry has a new growth franchise, as it upgrades its networ for interactivity. Cable is cheaper and faste than phone lines, and more cable compan will also offer local telephone service.

Cablevision and Comcast stand out as viable growth properties with sizable free cash flow prospects. (Free cash flow: net income, plus depreciation, minus maintenance-level capital expenditures.) The industry will also make money on e-commerce. Liberty Media, which will be controlled by John Malone at the close of his deal with AT&T, is a natural long-term play on cable program content. If it can develo e-commerce on its sports and nature channels, midteens cash flow growth is assured.

MCI WorldCom is years ahead of AT&T a a provider of digital transmission for Internet purveyors like AOL. This is a great growth sector. Software, server and storag infrastructure properties like Sun Microsystems, Cisco Systems and EMC Corp. are good plays on Internet eyeball proliferatio

So the do-it-yourself Internet investor—especially the slightly cowardly, which is what we all should be—should package cable and telecom firms and infrastructure providers along with purer portal operations. And don't forget my quintessential Internet play, Microsoft. It has a big e-commerce business—half a billion in revenue already—and has invested $1 billion i Comcast and an equal amount in Europea cable companies. The concept is elementary: Microsoft thinks it can use cable to outgun America Online. What's curious is how poorly Wall Street understands Micro soft. Analysts repeatedly let Redmond, Wash. lowball them on expected earnings.

Bill Gates once said that he doesn't recommend Internet stocks to people who don't like massive risk. Of course, he owns the biggest Internet stake of all. ■

Martin Sosnoff is chief investment officer of Atalanta/Sosnoff Capital in New York and author of *Silent Investor, Silent Loser.* E-mail: mts@atalantasosnoff.com

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Edited by Matthew Schifrin

Tell the IRS you're a pro

WE DON'T ADVISE YOU to quit your day job in order to trade on-line. But what if that is what you have already done? In that case we recommend that you think seriously about qualifying for tax purposes as a professional trader. Depending on your circumstances, the switch could save you a bundle in taxes.

PHOTONICA

Professional traders have a best-of-both-worlds deal. They can write off investment expenses, like computers, a home office and business magazine subscriptions, on their Schedule C report of business profits and losses. Yet their income—trading profits, that is—doesn't have to go on Schedule C, where it would be subject to self-employment tax. Instead, the trading profits go on Schedule D, just as they would for any investor.

Amateurs have a hard time claiming investment expenses. Some of these deductions are simply forbidden to amateur investors; the rest go on to Schedule A as "miscellaneous" deductions. Miscellaneous deductions can be claimed only to the extent they exceed 2% of adjusted gross income. That floor is high enough to make miscellaneous deductions worthless to a lot of taxpayers.

Do you qualify as a professional trader? Two Supreme Court rulings define what constitutes a pro, but both predate the Internet era, explains KPMG's Steven Rosenthal. This much is clear: A pro must derive most of his income from trading, must not have any other full-time job and must be buying and selling throughout the day.

Two cautions. One is that the Internal Revenue Service will give you a hard time when it sees that fat loss, and no income, on Schedule C. You may not prevail in an audit.

The other: Amateur investors are entitled to use the Small Order Execution System; pros are not. It is questionable whether you should be telling the Securities & Exchange Commission that you are an amateur while telling the IRS that you are something else.

If you do think you qualify, consider another tax trick. As a pro, you have the option of adopting "mark-to-market" accounting, whereby positions outstanding on Dec. 31 are treated as if they were sold and immediately bought back at the close of business. The advantage of mark-to-market is that it exempts you from the wash sale rule, which can be a nuisance for in-and-out traders. That rule bars a deduction for a losing trade when you buy the same stock back within 30 days.

The disadvantage to mark-to-market is a big one. It converts all your gains and losses, even those on positions held for more than a year, into ordinary income or loss. Sure, in a year when you lose a ton of money, you will be better off with the ordinary income treatment. But if you have a lot of winners you would have done better to hold on for a year and use the favorable capital gains tax rates.

Mark-to-market is a one-way street. Once you adopt this accounting system you can't get out of it without an IRS dispensation.

A perennial loser would definitely benefit from the mark-to-market rules—but then if you are a perennial loser, why are you day-trading?

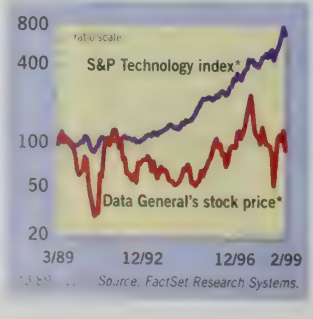
–SCOTT MCCORMACK

Route 128 lives

ONCE UPON A TIME, when the minicomputer held sway, Massachusetts' Route 128 was as famous as Silicon Valley. It was home to Wang Laboratories, Digital Equipment Corp. and Data General Corp. The first was reorganized and no longer makes computers, the second was acquired, and the third, you may have forgotten, survives on the Big Board under the ticker symbol DGN.

Data General isn't the glamour stock it used to be. It traded at a recent $13.88, which gives the company an enterprise value (debt plus market value of common) of $952 million. That's not much more than half DG's 1998 sales of $1.46 billion.

Route 128 relic



Data General, once a growth stock, trades at a discount now.

DG has two important lines of business. One is servers, accounting for a third of revenue. This line is under attack from Compaq and other heavy hitters, which is a big reason DG took a $135 million pretax charge last year and fired 400 people.

The other line worth paying attention to is network storage

ices, sold under the brand Clari-
. Here, DG competes with IBM
d EMC. David Takata, an analyst in
untal & Co.'s Beverly Hills office,
nks investors should be giving
ta General a little more credit for
success in this specialty. Demand
its network storage hardware
uld grow 16% this year, he says.
Takata predicts that DG will
prove its net from a loss of $3.11
hare (after that special charge) last
r ending September, to a profit
48 cents in 1999, and 92 cents in
00. If the stock hits $24 within a
r, he says, you should start taking
fits. –OM MALIK

oor man's consultant

NOT EVERY consulting firm has revenues in ten figures. er Technologies in Walnut Creek, lif. took in $70 million last year lping clients upgrade their creaky ainframe computer systems. On at modest sales base Tier netted .8 million, or 48 cents a share. he shares (Nasdaq: TIER) trade at 3, or 27 times those earnings. Instead of pushing them to tempt total conversion to ent/server systems, Tier encour-es clients to "migrate" to new chnology by enhancing the legacy ainframe systems they have in ace and buying new computers adually. Humana Inc., the state of issouri and even computer maker nisys Corp. love this advice. These ree account for a little over half of er's revenue.

The fragmented technology con-lting industry is consolidating, nd Tier is doing its share of uying. That's the main reason its ead count has more than doubled er the past year, to 650.

T. Rowe Price's New Horizons und has accumulated close to 10%. ohn H. Laporte, manager of the nd, says Tier can earn 68 cents a hare this year. He loves the stock. e suggest selling if it gets as high $23 before the year is out.

–STEPHANE FITCH

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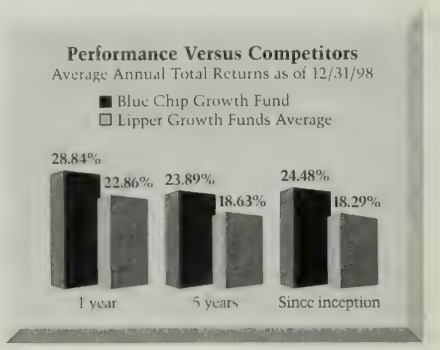

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*Morningstar proprietary ratings reflect historical risk-adjusted performance as of 1/31/99. These ratings may change monthly and are calculated from the fund's 3- and 5-year average annual returns in excess of 90-day Treasury bill returns with appropriate fee adjustments and a risk factor that reflects fund performance below 90-day Treasury bill returns. The fund received 5 stars for the 3- and 5-year periods. The top 10% of the funds in an investment category receive 5 stars. Read the prospectus carefully before investing. T. Rowe Price Investment Services, Inc., Distributor. BCG047067

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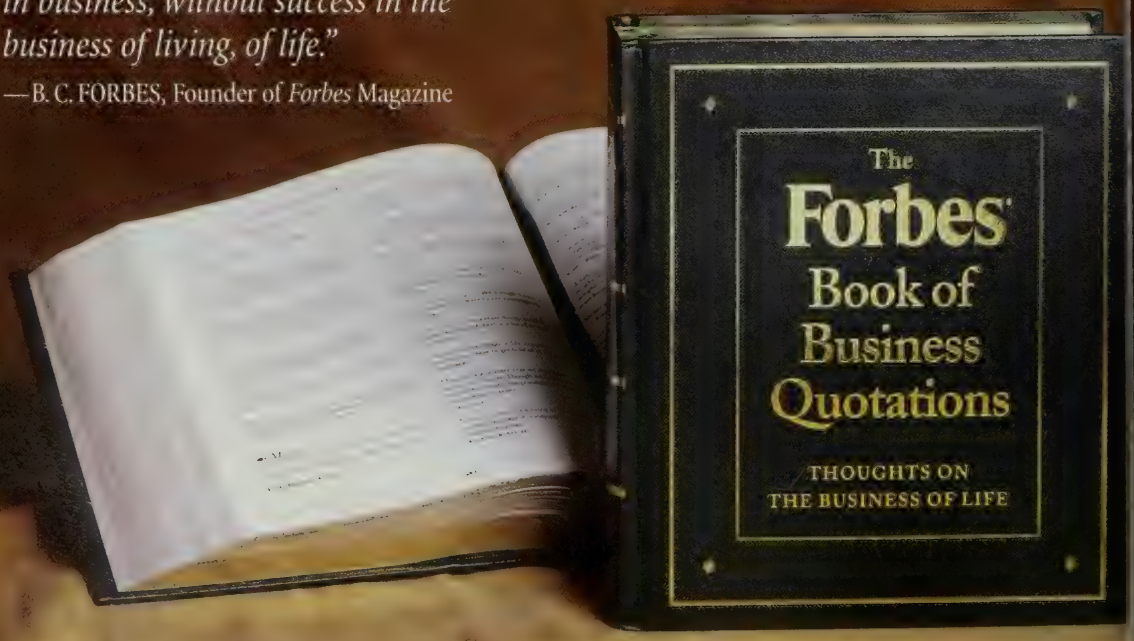

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ndard & Poor's index of 37 retail cks has gained 46% over the past months, while the S&P 500 index gained only 18%. Despite this ong performance in the retail tor, Donald Spindel, retail analyst A.G. Edwards, sees opportunities. indel is particularly optimistic out superstore retailers such as Sta- s (SPLS, $29), the fastest-growing ice products chain. Spindel thinks t Staples will show annual earnings wth of 30% over the next three rs. "Staples will also benefit from Internet presence," he says.

Another pick: BJ's Wholesale Club , $44), the Natick, Mass.-based ailer spun off from HomeBase rmerly Waban) in 1997. Spindel ects 17% earnings growth for BJ's fiscal 1999 and at least 15% annual wth in the following two years.

Special focus

Value stocks and small-capitalization stocks are out of favor, but analysts think that the eight small-cap stocks below—each with a market value under $600 million—could show annual earnings increases of 10% or more over the next five years. As a group they sell for less than ten times estimated 1999 profits.

Big deals in small caps

Company	Recent price	1999 est P/E	5-yr EPS growth*
Amcol Intl	$9.50	11	11%
Delco Remy Intl	9.88	9	16
Fairfield Communities	8.19	7	24
Griffon	9.00	8	10
Magellan Health Svcs	6.81	7	13
NBTY	6.00	11	15
Prime Hospitality	10.25	9	13
Paxar	8.50	10	23

*Estimated.
Sources: IDC, IBES and Market Guide via FactSet Research Systems; IBES Express.

The overall market

Closeup on the markets

Index or investment	2-week change	% change from 1 year ago	% change from 5-year high
Barra All-US index	0.3%	10.9%	-4.0%
S&P/Barra Growth index	1.0	29.7	-4.0
S&P/Barra Value index[2]	0.3	5.8	-5.4
Dow Jones industrials	0.3	8.9	-3.5
S&P 500	0.7	18.0	-3.2
NYSE	0.9	7.8	-4.0
Nasdaq	-1.5	29.2	-8.8
PSE Tech 100	-3.5	36.2	-10.3
EAFE[4]	-0.4	3.4	-7.0
CRB futures index[5,6]	-2.0	-19.6	-30.1
Gold (Comex spot)	-1.0	-3.9	-30.7
Yen[7] (per $US)	4.4	-5.6	-19.2
Oil (W Texas Intermediate)	3.4	-20.4	-53.9

What the funds are buying and selling[1]

Buying	Recent price	Market value ($mil)	1999 EPS[8]	Selling	Recent price	Market value ($mil)	1999 EPS[8]
International Network Svcs	$51.13	$1,705	$0.75	Barnes & Noble	$29.63	$2,033	$1.19
i2 Technologies	24.94	1,777	0.50	Columbia/HCA Healthcare	17.88	11,153	1.32
Microsoft	150.13	374,347	2.59	Cooper Cameron	23.50	1,251	1.24
Perkin-Elmer	94.75	4,719	3.21	Ocwen Financial	8.00	486	1.53
Rational Software	29.69	2,514	0.88	Quorum Health Group	9.25	668	0.78

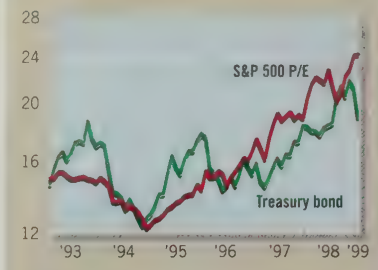
The best and worst performing industry factors

Best	2-week change	Change since 12/31/98	Worst	2-week change	Change since 12/31/98
Misc mining metals	11.5%	5.1%	Business equip	-6.6 %	-4.4%
Life insurance	9.7	11.6	Water transport	-6.6	-18.9
Air transport	9.4	9.5	Construction	-6.2	-3.4
Photographic, optical	7.4	0.7	Precious metals	-6.0	-5.4
Hotels, restaurants	6.3	13.2	Pollution control	-3.5	4.4

[1]For period ending 2/26/99. The Barra All-US price index consists of all publicly traded U.S. common stocks for which price quotations are available and ordinary shares of foreign stocks traded on U.S. markets. ADRs, REITs and closed-end funds are index. [2]Total return of more than 150 large-capitalization stocks that have high historical earnings growth and have predicted above-average earnings growth. [3]Total return of more than 300 large-capitalization stocks characterized by low price-to-book ratios, high yields and low price-to-earnings ratios. [4]A price-weighted index of 100 widely followed U.S. technology stocks. Base value 12/31/82 = 50 (adjusted). [4]A dollar-denominated, capitalization-weighted index of more than 1,100 foreign stocks. Source: Morgan Stanley Capital International. [5]Index of 21 commodity futures. [6]Source: Bridge-Commodity Research Bureau. [7]Buys and sells are tabulated by fastcheck.com, a proprietary model from the Mutual Discovery Network. For an update on the performance of these stocks see our Web site at www.forbes.com/wallstreet. [8]Consensus estimate. [9]Shows return after controlling for other influences, including company size, value and growth characteristics. Multi-industry firms have proportional contributions in two or more groups. *Principal sources: Barra, Inc.; IBES Express.*

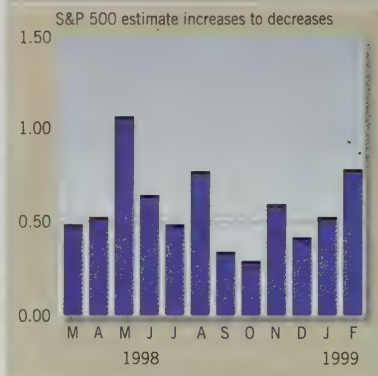
FORBES

S&P 500 P/E* vs. Treasury bond†



*The recent price of the S&P 500 divided by estimated earnings over the next 12 months.
†Inverted yield to maturity for the ten-year Treasury bond.

IBES estimate revisions index



Forecasting the S&P 500

Year	Estimated P/E	% change current est vs 3 months ago	Expected year-to-year EPS growth
1998[1]	28.3	–1.4%	–1.8%
1999	24.5	–2.8	15.6
2000	21.1	–0.9	16.1

1999 estimates for IBES industry groups

Rising estimates	Falling estimates
truck mfg	natural gas
semiconductors	shipbuilding
residential building	oil
auto mfg	nonferrous metals
recreational vehicles	steel

[1]Actual.

The S&P 500 trades at 24 times its 12-month forward forecast, or at a 27% earnings premium to the ten-year Treasury bond (see chart above). Joseph Abbott, vice president at IBES, notes the S&P—based on 12-month estimates—historically sells at a slight discount to the ten-year Treasury. In August 1987, just before the October crash, the S&P's estimated P/E was at a record 40% premium to Treasurys. "We could be in for a 15% market correction in the next three months," warns Abbott.

Abbott is also troubled by the fact that IBES expe overall corporate profits to rise only 5% this year (ver 16% consensus estimate), which could pose a problem overpriced stocks. For example, analysts expect a 5% ea ings gain for Coca-Cola (KO, $64), but the stock trad at a hefty 43 times its 1999 estimate.

Abbott sees opportunities in stocks such as Gene Motors (GM, $83), which is expected to earn $8.79 p share in 1999, versus $4.55 in 1998. General Moto trades at just nine times its 1999 estimate.

Greatest increase in estimates over the past three months

Company/industry	1998 EPS	1999 EPS estimate: recent	1999 EPS estimate: 3-month change	P/E	3-month price change	Reason
Applied Materials/semicon mfg equip	$1.15	$1.08	**74%**	52	37%	Recovery in microchip markets
WLR Foods/poultry products	–1.51	1.02	**50**	9	0	Improved pricing for turkey and chicken products
Seagate Technology/data storage prods	0.01	1.58	**34**	18	–8	Strong demand for high-performance disk drives
Hutchinson Technology/disk components	–2.45	2.59	**31**	12	–3	Increased demand for disk drives
Immunex/biotechnology	–0.09	0.68	**31**	NM	51	New drug for rheumatoid arthritis

Greatest decrease in estimates over the past three months

Company/industry	1998 EPS	1999 EPS estimate: recent	1999 EPS estimate: 3-month change	P/E	3-month price change	Reason
Phelps Dodge/copper	$1.57	$0.90	**–66%**	54	–15%	Weak copper prices
Weatherford Intl/oilfield equipment	1.99	0.64	**–64**	27	–17	Weak oil prices causing cuts in capital spending
Case/farm & construction machinery	1.94	0.75	**–63**	26	–21	Low crop prices
DT Industries/automated assembly equip	2.57	0.81	**–62**	14	–42	Weak demand
World Access/telecomm equipment	0.95	0.72	**–60**	11	–63	Increased competition

...8 through 2/26/99. Listed companies have a market capitalization of $100 million or more. Earnings projections are Wall Street consensus estimates from 2,5 ...compiled by IBES Inc. NM: Not meanin...

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LIPPER GROWTH & INCOME FUNDS*	15.6%	21.3%	18.4%	*N/A*	*N/A*

Average annual total returns and Morningstar performance rating as of December 31, 1998. Funds rated for the overall and 3-year period among 2,802 domestic stock funds and for the 5-year period among 1,702 domestic stock funds.

American Century's Income & Growth Fund has consistently beaten its peers, year after year. It's earned Morningstar's highest rating, ranking in the top ten percent of domestic stock funds for risk-adjusted performance. While past performance doesn't guarantee future results, this fund has ranked near the top of its class. For more information about the Income & Growth Fund, call American Century at **1-800-345-2021** and ask for a free prospectus.

Please ask for a prospectus with more complete information, including charges and expenses. Be sure to read it carefully before you invest. *Naturally, past performance can't guarantee future results.*

*Morningstar proprietary ratings reflect risk-adjusted performance for Investor Class Shares as of 12/31/98. These ratings may change monthly, and are calculated from the fund's three-, five- and ten-year (when available) average annual total returns in excess of 90-day Treasury bill returns, with appropriate fee adjustments and a risk factor reflecting fund performance below 90-day Treasury bill returns. Income and Growth has a five-star rating for three and five years out of 2,802 and 1,702 domestic stock funds. The top ten percent of the funds in an investment category received five stars. *For the period ending December 31, 1998, as provided by Lipper, Inc. Data quoted represents past performance. Investment return and principal value will fluctuate, and redemption value may be more or less than original cost. Funds Distributor, Inc.*

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Mr. Thrift

Even in this frothy market you can find quality companies selling for less than book value. But are you willing to invest as unglamorously as fund manager Dave Ellison?

By James M. Clash

FBR's David Ellison: **Buy S&Ls, but keep an eye on interest rates.**

A YEAR AGO portfolio manager David Ellison was in orbit. His FBR Small Cap Financial Fund had gained 58% in 1997, its inaugural year—"a moonshot!" says Ellison—beating the S&P 500 index by 25 points. And Ellison had already been on a tear. Before leaving Fidelity Investments back in 1996 to join Friedman, Billings, Ramsey & Co., an Arlington, Va. investment bank specializing in financial service companies, he had guided Fidelity's Select Home Finance sector fund to a ten-year average annual gain of 21%, the fourth-best record in the mutual fund industry.

The gods of sector investing, of course, couldn't let that go on. Last year, even as interest rates fell—usually a good thing f financial stocks a flattening yie curve reduced t short-term/lon term spread th banks have explo ed for so mu profit in the lo bull market.

"The Wells F gos of the wo have 5% spread meaning they ha an 8% yield assets and roughly 3% cost of funds explains Elliso "If, in three yea they're lending 5% because rat have come dow they won't have zero cost funds—and th won't have tho 5% spreads. That the bogeyman."

The FBR fun which has assets $56 million, lo 14% last year wh the S&P gained 29%. (The avera financial sector fund was up 6% That loss isn't so bad—not after many profitable years—but it unde scores the huge gap in valuati between the small-cap financial firm Ellison specializes in and the broad market. Regional thrifts have been h the hardest. They don't have mu fee income from credit cards, chec

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Thrifts for the thrifty

Company/Ticker	Recent price	1998 EPS	Price/ book	Assets ($mil)	Capital ratio*	Market cap ($mil)
Catskill Financial/CATB	$15.00	$0.94	0.95	$324	21%	$64
CFS Bancorp/CITZ	10.50	0.82	0.92	1,470	18	240
CNY Financial/CNYF	10.75	0.57	0.73	285	28	56
First Place Financial/FPFC	10.50	0.60	0.75	745	21	119
Oregon Trail Financial/OTFC	12.88	0.77	0.85	304	20	52
Roslyn Bancorp/RSLN	16.31	1.36	1.10	7,800	11	1,265
Union Community/UCBC	12.00	0.70	0.86	110	39	36
Washington Federal Savings/WFSL	22.50	1.93	1.60	5,600	14	1,156

Data as of 2/26. *Equity divided by assets.

Sources: Friedman, Billings, Ramsey & Co.; IBES Expres

These savings and loan companies, all trading near book value and with high capital ratios, look attractive for buy-and-hold investors.

ing accounts or trust departments to buffer that inevitable shrinkage in the gross interest margin. Mortgage refinancings have also hurt the thrifts' portfolios of home loans that they either hold or service. And the stocks, purely by virtue of their size, have fallen with the out-of-favor small-cap sector.

It's gotten so bad that many thrifts sell below book value, a remarkable contrast to the S&P's price-to-book ratio of nearly 7. Even the depressed big banks look expensive in comparison. "State Street and Bank of New York are trading at five times book. I'm not denying they're good companies," says Ellison. "But I can buy these other guys for 80% of book."

Consider Union Community Bancorp, a Crawfordsville, Ind. thrift with $110 million in assets, $42 million in book value and, at the recent close of $12, a $36 million market cap. Union Community's unusually rich ratio of equity capital to assets, 39%, means that it could raise its 40 cent annual dividend, buy in shares or buy another thrift for cash.

Of the 450 or so Nasdaq-listed thrifts, Ellison considers only those with reasonably high trading volume and hence liquidity. He won't rule out market caps as low as $20 million, but his typical pick has a $100 million market cap and assets of $300 million. He screens for companies selling near book value with capital ratios of at least 10%.

What will make such stocks recover? Perhaps a steepening of the yield curve, which would restore spreads. The recent unexpected strength in the U.S. economy, and the resulting spike in long-term interest rates, is helping. But if rates rise too much, the demand for loans will fall. So Ellison is walking a fine line. For now, he is content knowing he's buying good companies cheaply. "To make big money you have to be patient," he says. "This is a time to be patient."

Another typical Ellison pick is a little Pacific Northwest savings and loan called Oregon Trail Financial, based in Baker City, Ore. It has seven offices, assets of $304 million and a market cap of $52 million. Ellison bought Oregon Trail at its initial offering of $10 in late 1997; it now trades at $12.50, a 15% discount to book value. Oregon Trail has been buying its own stock, in effect increasing its book value, and Ellison notes that in a region with relatively few banks, the company is a possible buyout candidate. Oregon Trail has been around since 1901, so its recent initial offering doesn't indicate unseasoned management.

With many thrift stocks now sunk below book value, "This is a time to be patient—you have to be."

Ellison isn't dogmatic about paying less than book value. Larger thrifts, which operate more like classic banks—with more varied sources of revenue—aren't likely to ever get that cheap. But their more diversified (and often more profitable) loan portfolios justify a higher price. At $22.5[illegible] Washington Federal, a Seattle thrift with $5.6 billion in assets and a $1[illegible] billion market cap, sells for 1.6 times book. It is also very efficient: Its ratio of operating expenses to assets is just 0.9%, versus the thrift industry average of 2%.

The FBR Small Cap Financial Fund has a $1,000 minimum investment and no sales load. Its 1.65% annual expense charge is on the high side for an equity fund but seems excusable given its small asset base. Be thankful Ellison doesn't have a $10 billion portfolio; it he did, he couldn't keep filling it buying itty-bitty S&Ls in Indiana at a discount to book.

For investors who want to assemble their own portfolios, Ellison recommends a minimum of five stocks and some geographic diversity, to protect against regional economic slumps. Buy and hold. Going in and out of a thinly traded Nasdaq stock is a recipe for being nicked to death by bid/ask spreads.

We've listed eight Ellison picks in the table. For what it's worth, Ellison says his old boss, Peter Lynch, still keeps in touch: "He's very interested in the [thrift] group. He likes to hear about the fundamentals and always asks, 'What do you like?'"

Is Lynch himself buying? Ellison won't say. "We're both in the patient mode right now," he offers.

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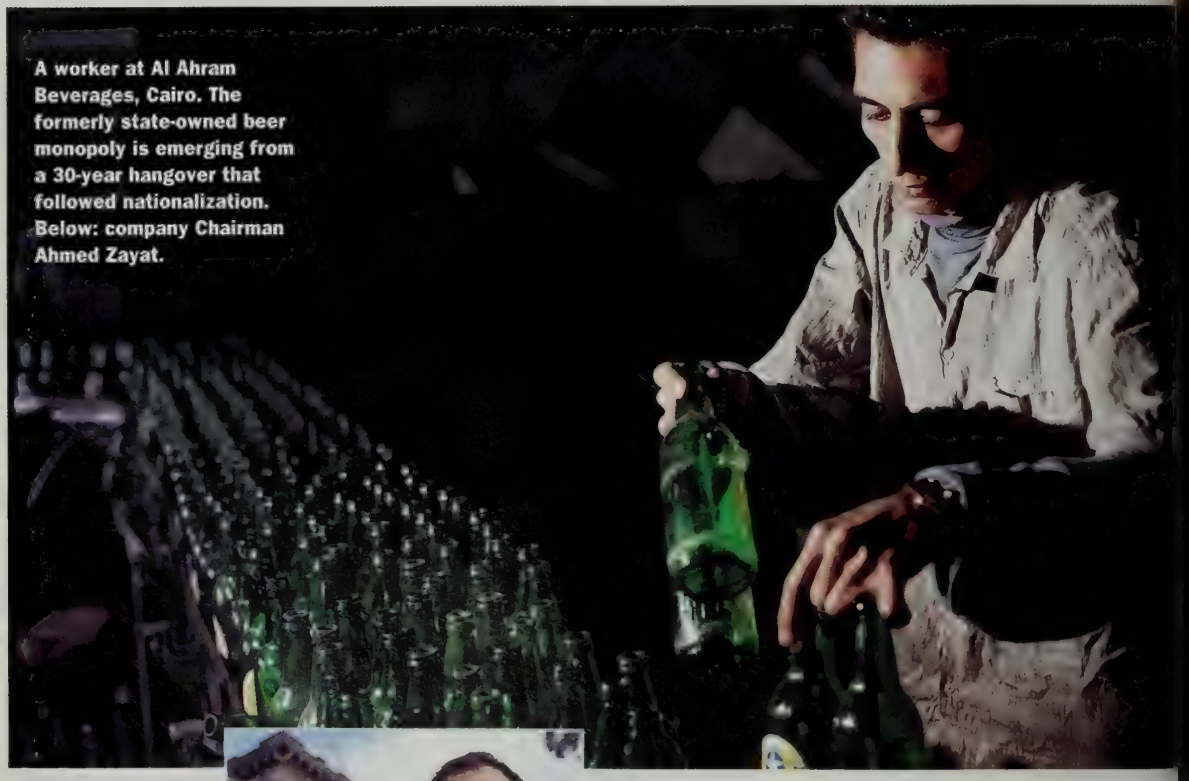
Emerging oasis

The collapse in stock prices all over the Third World has created some pockets of opportunity. Perhaps you didn't think to look at the Middle East.

By Thomas Easton



A worker at Al Ahram Beverages, Cairo. The formerly state-owned beer monopoly is emerging from a 30-year hangover that followed nationalization. Below: company Chairman Ahmed Zayat.

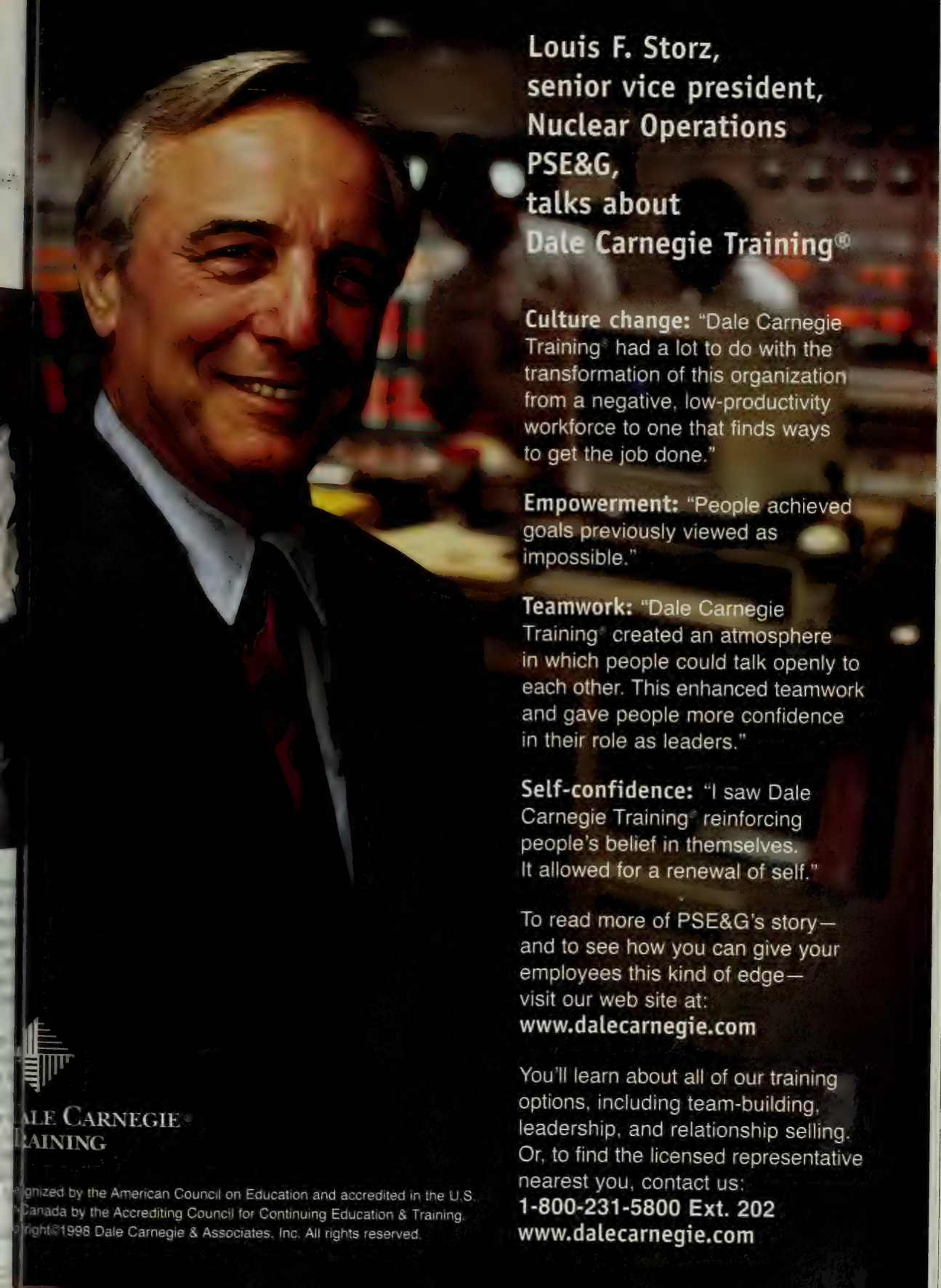
THE DAILY 747 from London's Heathrow to Cairo is packed but not with tourists en route to see the Pyramids. Businessmen fill the seats. They are looking for ways to deploy capital in what was, until very recently, a socialist basket case: Egypt.

The collapse of stock markets in Latin America, Southeast Asia and Russia has made a joke out of Third World investing. Yet almost without notice, Egypt is proving that a poor, belligerently anticapitalist nation can adopt capitalism. The process hasn't been fast or seamless, but then if it were, you wouldn't be finding bargains on the Cairo Stock Exchange.

The combined market capitalization for what is known as the MENA (Middle East, Northern Africa) region is all of $106 billion, just about the same as that of America Online and Yahoo combined. MENA is a collection of emerging nations commonly defined to exclude Israel (because it is too well developed to qualify), Turkey because it's also part of Europe) and Saudi Arabia and Kuwait (because of their restrictio on foreign investors). What's left a Egypt, the United Arab Emirat Morocco, Bahrain, Jordan and so smaller Arab nations. These are n places that ordinarily pop into yo mind when you think of intern tional diversification.

You should think again, says Joy Cornell, manager of Scudde Emerging Markets Growth Fun MENA offers a tempting combinati of economic growth, reform in t financial markets, a tendency for t economies to move in a differe cycle from the rest of the world a particularly in the case of Egy compelling valuations.

Earnings for companies trading



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Reclaiming an ancient franchise at Oriental Weavers. Below: Chief Executive Mohamed Farid Khamis.

the Cairo Exchange were up 15% in 1998, even as share prices declined by 30%. So far in 1999 Egyptian stocks have advanced 12%. And they're still cheap by the standards of today's developed markets. EIPICO, the largest drug company in Egypt, goes for nine times earnings and yields 7%. Torah Cement has steady growth in earnings and yields 10%.

Which is not to say there aren't risks. War, a handful of crackpot nations, terrorism and a tough history sour the climate. In the 1950s and 1960s Egypt wrote the book on how to destroy international investment. Holdings built up over decades were expropriated and then asphyxiated in a misguided attempt to create a pan-Arab socialist republic.

Parts of Cairo that were once favorably compared with Paris are covered with thick grime and flecked paint. Hostility toward foreigners continues. Zealots murdered a busload of tourists as recently as late 1997. The legacy of a Soviet-structured bureaucracy has taken years to wind down.

"Anyone who came here more than two years ago was just wasting his time," says Samih Sawiris, chief executive of Orascom *(see box)*, a local conglomerate. Tweak the date and the same could be said for much of MENA.

Since 1994 the Egyptian government has sold off 109 industrial companies to investors, representing a combined $3 billion in annual revenues, or 4% of the country's gross domestic product. The privatiza has miraculously taken place with the cronyism and kleptocrat cap ism seen in Russia and Latin Am ca. Another 100 companies, inc ing utilities, banks and insura companies, will be sold soon.

"A decision has been made to out [of the economy] complete says Atef Ebeid, Egypt's ministe charge of privatizations. (Or, aln completely. Oil productio 866,000 barrels a day—will prob not be ceded to foreigners, nor a the pharmaceutical industry.)

In the early 1990s there wasn single private Egyptian company v more than 1,000 employees, Ebeid. Now there are more than a handful of which are real gro stories. Egypt's once-stagnant ec omy has averaged a 5% real ann growth for the past three years. In tion is low, as is external debt (tha in part to forgiveness following Gulf war). The government defic negligible and, in a key distinctio many other emerging markets, ba are well capitalized and compan carry little debt.

Behind the good numbers is a change in attitudes. Mohamed Fa Khamis was booted out of Egypt 1967 for opposing the governme He returned in 1979, after buildin successful carpet business in Kuw when Egypt's then-president, An Sadat, promised support for priv business. Two years later, Khamis h nothing but regrets. Hiring, buyi selling—all required unaffordal bribes to indifferent bureaucrats. had lost hope," he says.

A day before he planned to cl up, Sadat's successor, Ho Mubarak, made a surprise inspecti "I said everything was fine," s Khamis. "I thought if we complain we'd be put in jail."

An employee blabbed. Muba listened. Obstacles eased. It w Khamis believes, a beginning for t country. His publicly traded Orien Weavers Group is now a huge fo not only in Egypt but also in Euro The main plant, once a lone outp in a desert outside of Cairo, has be gaining neighbors. A U.S. affili dominates the niche for machin made Oriental throw rugs. T

Emerging Middle Eastern stocks

Company	Country	Sector	Market cap ($US mil)	P/E 1999*	Dividend yield
Arabian Intl Contractors	Egypt	construction	$166.5	10.1	17.0%
EAB	Egypt	banking	190.6	5.3	11.4
EFIC	Egypt	fertilizers	118.5	6.9	8.4
Heliopolis Housing	Egypt	property	301.4	9.2	9.9
North Cairo Flour Mills	Egypt	milling	97.1	8.1	11.6
Suez Cement†	Egypt	cement	907.9	10.6	7.9
Arab Bank†	Jordan	banking	2,694.4	9.9	1.5
Arab Potash Co	Jordan	chemicals	454.4	10.9	4.9
Dar el Dawa	Jordan	pharmaceuticals	34.8	4.9	7.8
BLC Byblos†	Lebanon	banking	701.0	5.7	4.0
SFBT	Tunisia	beverages	136.5	13.8	2.5
STB	Tunisia	banking	202.2	7.1	6.8

*Estimated. †GDRs available. *Source: Nomura Securities.*

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riod	CREF Stock Account Star Rating/Number of Domestic Equity Accounts Rated	CREF Bond Market Account Star Rating/Number of Fixed Income Accounts Rated	CREF Social Choice Account Star Rating/Number of Domestic Equity Accounts Rated	CREF Global Equities Account Star Rating/Number of International Equity Accounts Rated	CREF Equity Index Account Star Rating/Number of Domestic Equity Accounts Rated	CREF Growth Account Star Rating/Number of Domestic Equity Accounts Rated
Year	4/2,553	5/727	4/2,553	4/512	5/2,553	5/2,553
Year	4/1,819	5/547	4/1,819	4/303	N/A	N/A
Year	4/990	N/A	N/A	N/A	N/A	N/A

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parent group, Oriental Weavers, took in $700 million in revenue last year. The Egyptian subsidiary, with revenues of $180 million, trades in Cairo at $24, or 11 times 1999 earnings.

Egyptian-born Ahmed Zayat, 36, was educated in the United States and would have stayed but for the 1996 privatization of Al Ahram Beverages. Al Ahram owns Stella, the former national beer monopoly. Al Ahram may have qualified as the most nonconsumer-driven consumer products company in the world.

"At one point, even if it had been piss water it would have sold," says Zayat in a midnight interview at the old Al Ahram plant where he often works until dawn. "Flying objects" were bottled with the beer (leading to a local joke: Why buy Stella? One thousand roaches can't be wrong), there was no standard recipe; bad batches were blended into good ones. The shipping room got a $2 kickback on the sale of every $15 case.

The roaches, and the kickbacks, are history. In the past two years Al Ahram has introduced 17 new products, most of them nonalcoholic; not a bad strategy in a country that has numerous Islamic teetotalers. Sales last year were up 33% to $61.2 million. The stock trades at $34, or 12 times expected 1999 earnings...

The visible edge of the evolution in Egyptian business emerges on El Sherifein Street. Donkey carts carrying milk trundle past the lovely old Cairo Exchange as they have since 1928, when it was built roughly in the style of the far larger exchange in New York. The dark decades have taken their toll. An elevator running up the spine of the building has long been broken. Pulleys once used to lift buckets of trading tickets from the floor dangle from a vaulted ceiling in need of paint. Chalk boards with the old listings hang unused above an unstable wrought-iron balcony.

It is a scene that will be gone in a year. Already, the two rooms abutting the main floor have been gutted to accommodate cables and transmission equipment. Sherif Raafat, an ex-Kidder Peabody employee at the end of an 18-month tenure heading the stock exchange while on sabbatical from a local investment firm, sits in a newly renovated office on the third floor.

Raafat keeps a battered 1,042-page book on his desk detailing all the companies listed on the exchange in the early 1950s. Back then, he says, Cairo was the fourth-busiest exchange in the world. By 1961, nationalizations effectively wiped out trading.

Activity returned in the 1990s wit the privatizations and some "ne issues. Currently 140 brokerage firm provide an active market for 10 companies; hundreds more are trade less frequently. The exchange' market cap is now $25 billion. Tha figure could triple overnight with string of new privatizations of tele com, electricity, bank and insuranc companies.

Some 4 million Egyptians wor outside of Egypt and send their earn ings home. Raafat estimates there i $80 billion of locally controlled cap ital in Switzerland that, if condition were right, could come home. Cair was once a rich, dynamic market. I could be one again.

Do you want to bet on that? Foreig & Colonial's Middle East Fund trade on the New York Stock Exchange at 23% discount to net asset value. Merri Lynch offers an open-end equivalen Although the Middle East composes negligible percentage of any globa index, Scudder's Emerging Market Growth holds an outsized 23% posi tion, more than half in Egypt. Si Egyptian blue chip companies trade o the London Exchange, including A Ahram and Lazard Frères Egypt Trus (at a 15% discount to NAV). See th table on page 156 for other ideas.

Princes of Egypt

AS FORTUNES DISAPPEAR throughout the emerging markets, new ones are being built. In Egypt, one name stands out: Sawiris.

Onsi Sawiris fled Egypt for Libya in 1961 and then vice versa in 1972, each time hounded by a hostile government. He lost his assets but remembered how to build: tiny stores, then small factories, then steel mills, chemical and cement plants and entertainment spots. Common theme: Egypt doesn't have it or foreign firms can't provide it or enfeebled government-appointed managers run it.

Sawiris clan: Patriarch Onsi (seated) and sons Samih, Nassef and Naguib.

"You want to go out at night? The nicest places are mine. You want to buy a PC? It's mine. You use a mobile phone, you look at a building, and it's mine," sums up Onsi's eldest son, Naguib. Naguib, 44, along with his two brothers, Nassef, 38, and Samih, 42, runs an empire with annual revenues of $1 billion trading in piece on the Cairo Stock Exchange.

Naguib runs MobiNil, a mobile phone operator half-owned by France Telecom and Motorola. Subscribers doubled, to 180,000, in the past six months and, given lousy traditional land lines, could soon double again. Market cap: $1 billion.

Samih runs the $300 million market cap Orascom Projects & Touristic Development, a real estate developer creating El Gouna, a Red Sea village of 11,000 that draws Euro pean vacationers. Orascom built and operates six luxury hotels, owns the plants that desalinate the water, generate the electricity, make the mozzarella (there are many Italian tourists) and is building a brewery to make Löwenbräu. In 1998 earnings were probably up 30%, estimates Scudder's Joyce Cornell, giving the company a trailing P/E of 12. Next year should be even better. –JULIETTE ROSSANT

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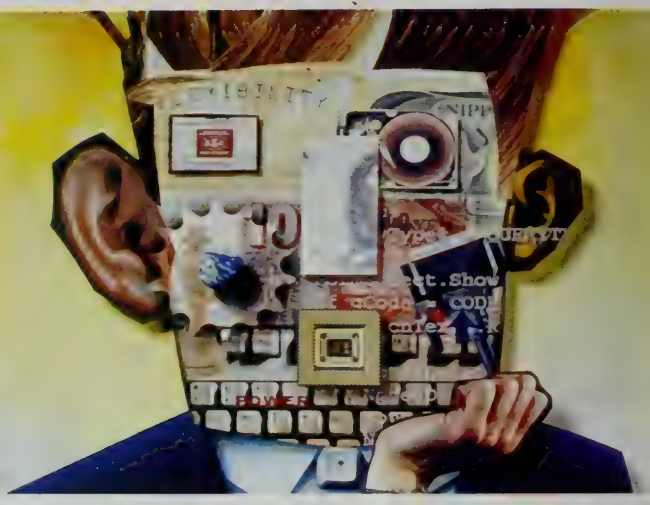

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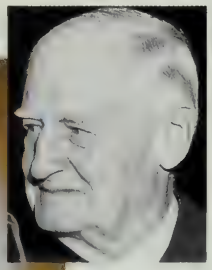
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If he were alive today we doubt Benjamin Graham (right) would favor stocks like Amazon.com at 29 times sales. Like Graham, Marvin Kline (center) and Richard Buchwald of Berwind Investment are value investors.

GROWTH IS IN, value is out. Over the past year the S&P Barra Growth Index, powered by stocks like Cisco and Intel, delivered a 46% total return, while the Barra Value Index, dominated by boring stocks like Alcoa and Harris, delivered only 18%.

Contrarians are betting on a reversal of the trend. One of them is Marvin Kline, president of Berwind Investment Management LP in Philadelphia. Kline's $27 billion portfolio consists of ten large value plays like Philip Morris and Ford Motor. He likes Philip Morris' 4.3% yield and its low earnings multiple: It trades at 12 times the consensus forecast for 1999 profits, while the market as a whole goes for 24 times the 1999 forecast.

Kline, 47, and his comanager, Richard Buchwald, 41, screen for large capitalization U.S. and foreign issues with strong cash flow (in the sense of earnings plus depreciation), low debt and high dividend yield. As a result, their portfolio trades at low multiples of their trailing earnings, forecast earnings and book value.

The criteria sound as if they were plucked right from the pages of Graham & Dodd's 1934 classic, *Security Analysis*. That's no coincidence. Kline says he has been a fan of Graham since his college days, just before he began a Wall Street career that included a stint at CoreStates Investment Banking.

Kline's portfolio includes Bank One, First Union and three foreign oil companies: Shell Transport & Trading, Royal Dutch Petroleum and BP Amoco. Lopsided? Kline doesn't care: "Our portfolio could conceivably have ten telecommunications companies or ten energy stocks." He claims that his portfolios have kept up with the overall market averages over the past three years, despite the relative weakness of value stocks.

Berwind Investment, a subsidiary of a $1 billion privately held conglomerate with stakes in real estate and mining, charges a hefty 1% annual fee for services on its $100,000 minimum-size account. You can probably get similar results buying Fidelity Equity-Income II fund, with a heavy value flavor and an annual expense ratio of only $0.68 per $100 in assets.

Here's a third alternative: Create your own value fund like the one shown in the table. Here we list 10 companies with market values above $25 billion and prices less than 40 times dividends and less than 18 times expected 2000 EPS. You can construct a similar screen using Market Guide's free software, StockQuest, at www.marketguide.com.

Investing directly saves you a management fee and gives you the ability to selectively realize losses as a way of generating tax deductions. Capital losses can be used to shelter any amount of capital gains, plus up to $3,000 of other income. ■

Someday growth stocks will fall out of favor...

Ticker	Company	Price recent	Price 12-month high	Price 12-month low	Yield	Estimated P/E 1999	Estimated P/E 2000	Market value ($bil)
ONE	Bank One	$53.25	$65.63	$36.00	3.2%	13.5	11.7	$57.7
BEL	Bell Atlantic	57.25	61.19	40.44	2.7	19.0	17.1	89.7
DD	DuPont	53.50	84.44	50.75	2.6	19.0	16.9	60.8
FTU	First Union	54.00	65.88	40.94	3.5	13.4	11.9	50.3
F	Ford Motor	59.25	66.50	35.88	3.1	11.2	11.0	65.9
GTE	GTE	65.50	71.81	46.56	2.9	18.8	16.4	62.9
MMM	Minnesota Mining & Mfg	77.75	97.88	65.63	2.9	19.3	17.2	32.0
MO	Philip Morris	41.00	59.50	34.75	4.3	12.3	10.8	98.5
SC	Shell Transport & Trading	32.75	46.50	30.13	4.0	22.3	16.8	54.1
TX	Texaco	48.56	65.00	45.50	3.7	22.5	16.6	26.8

Sources: Market Guide via OneSource Information Services; IBES Express.

...as investors return to value stocks such as these.

Workplace Futureproofing™ For Strategic Advantage

by Christina Lambert Clarke

Created in Partnership With

ASID
American Society of Interior Designers

Workplace Futureproofing™, a term coined by the American Socie Interior Designers (ASID), is the process of designing an interior space in a that prolongs the life span of both the design and the products used. Beca Workplace Futureproofing is highly effective at helping companies n both short- and long-term objectives, it is a vital step in a business's strat planning process.

n his 1992 book *Liberation Management,* Tom Peters wrote, "Space management may well be the most ignored — and most powerful — tool for inducing cultural change, speeding up innovation projects and enhancing the learning process in far-flung organizations."

Since that time, the concept of office redesign as a business tool has been gaining momentum. More and more corporations are approaching design strategically as they discover its effectiveness in several critical areas:

Increasing productivity. In a recent study conducted by ASID, nearly 90% of management consultants, interior consultants and academics interviewed said they have seen interior design improvements lead to increases in office performance. In an earlier survey, 90% of CEOs, idents, COOs and facility managers at s midsize and large companies also reporte positive effects of design on performance.

The most recent study also confirme four critical design factors that affect offic formance: access to people and resources, fort, privacy and flexibility. ASID is curr conducting a major field experiment to qu fy *exactly* how these factors impact the bo line for business.

Supporting cultural changes. Sinc mid- to late 1980s, companies have been m away from hierarchical organizational stru — reducing management layers, empow employees and promoting teaming work s

Suddenly the words "eat our dust" come to mind.

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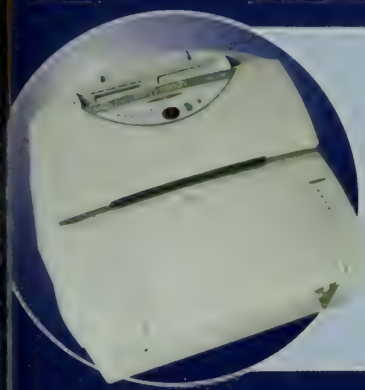

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Redesigning corporate facilities — eliminating barriers between management and workers, creating more spaces for intermingling, etc. — is a powerful and necessary way to effect these changes.

Recruiting and retaining talented employees. With entrepreneurism on the rise and corporate loyalty on the decline, the issue of employee satisfaction is on every senior executive's mind. Today's knowledge-based workforce is of a higher quality than ever before. Jean Wineman, associate professor and director of the doctoral program at Georgia Tech's College of Architecture, says, "When you make a significant investment in your workers, you want to keep them around. How well the space meets their needs plays a huge role."

Companies should strive for an attractive, comfortable environment that allows employees easy access to information and colleagues, meets their ergonomic needs with comfortable furniture and equipment, minimizes noise disruptions, has good lighting and air quality and offers the right services that enable them to get their jobs done with the least amount of difficulty.

Planning for the Future

As CEOs become convinced of the essential link between the work environment and their bottom line, they are integrating design into the strategic planning process early on. They are challenging their management teams to create a better fit between what their employees do and how and where they do it, and they are committing the necessary resources to create the most effective working environments possible.

But in the coming decades, companies will confront enormous productivity challenges. Peter Leyden, former *Wired* editor and author of *The Long Boom*, says we are at the beginning of "a global economic boom on a scale never experienced before," driven by technology, globalization and the opening of national economies.

As new technologies and new ways of working and conducting business emerge, companies need to adapt their physical environments to accommodate them — and they need to futureproof to ensure the longevity of their efforts to improve workplace performance.

"Create team spaces that are functional and elegant. People love going to meetings and participating when the tools and settings actually enable them to work more effectively."

— Jim Hackett, CEO, Steelcase Inc.

Growth in "Team" Work

Enlightened companies have long known — and research studies are beginning to prove — that group-based activity sparks creativity and leads to the real innovation within companies. Small wonder corporate America is fast following suit.

Jim Hackett, CEO of Steelcase, the world's leading designer and manufacturer of high-performance work environments, believes teaming will be the predominant work style of the future. As such, he advises executives to "plan your office around *we* versus *I*." In a recent interview, he explains:

"We are seeing a major paradigm shift in space allocation. We've videotaped hours and hours of people working in traditional settings — where 80% of the space was allocated to individual, walled offices — and discovered that they weren't in their workstations. They were working in team meetings, adapting non-group spaces to do this. They were borrowing chairs, cramming into spaces, meeting in hallways — trying to make it work.

"We're advising companies to allocate up to 80% of their square footage to teams (*we*) first, and as little as 20% to individuals (*I*). Create wonderful, glorious spaces so that when employees do need to isolate themselves, they have more than adequate capability for that. But create team spaces that are functional and elegant. People love going to meetings and participating when the tools and settings actually enable them to work more effectively."

It's a drastic redistribution of space, but Hackett obviously trusts his vision of the future office. When he was na CEO of Steelcase four years ago, he in diately embarked on a strategic redesi its executive suites, one that would f tate the teaming, community-based ership approach he and his senior man were cultivating. In a radical redesigr ecutives at this $3.3 billion company up their traditional private offices in of an open work system.

Today, they have first-come, served temporary access to three fully closed private work settings, nine encl collaborating or conference areas and own personal workstation for phor computer work. Everyone has access t Information Theater-in-the-Round, w features five 100-inch diagonal scr projecting real-time, computer-gene information on ongoing corporate o tions. The area has 32 electronic hitc posts for the executives to plug in laptops, interactively process the info tion and create "what-if" scenarios to b adapt to and project changing bus conditions.

Enhanced Networks

If the workplace of the future wi defined by group-based activities, people will need to be better netwo Georgia Tech's Wineman says, "Comm cation is critical for work teams, among team members and between t and the rest of the organization. It's e tial so that teams don't stagnate, but r import ideas constantly."

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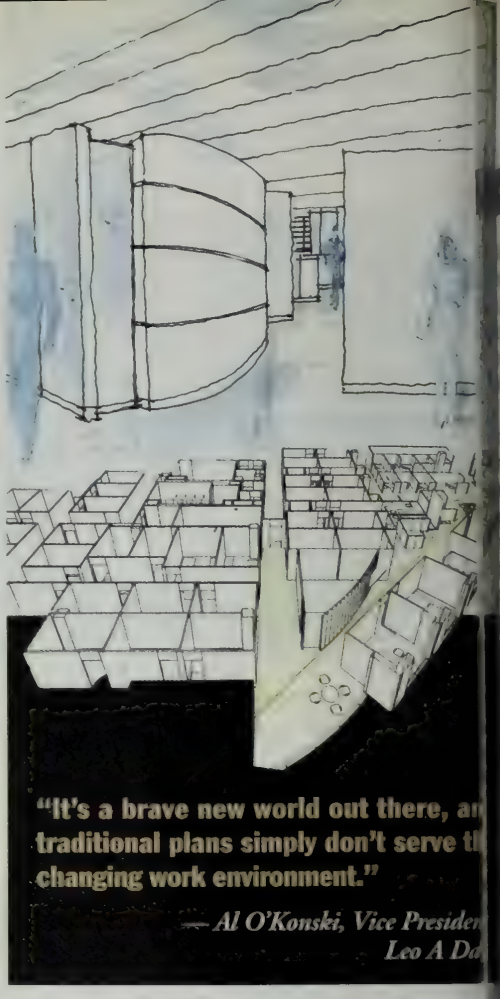
Technology, obviously, will continue to be a major force in networking employees. "People will be more mobile," says Hackett, "not just in their homes or cars, but also inside corporations. So the spaces will require that they can locate and establish connections to do their work from many places.

"There will be multiple devices, all needing connections to the computer network. Consequently it's going to require a multiplicity of ways to get connectivity to users. We believe Steelcase will play a key role in facilitating this, and we have recently signed an alliance with Lucent Technologies to tap that company's expertise in navigating communications cabling and systems into buildings, floors and furniture."

Dean F. Shulman, senior vice president of Brother International Corporation, a $1 billion manufacturer of business information products, agrees that communication tools will be an important driver of office productivity in the next 10 to 15 years. These tools will be critical to sharing timely information with team members, colleagues, customers and suppliers.

But he believes that people today spend too much time on the actual technology — accumulating data, but not interpreting, evaluating or utilizing it. "Good communication tools must have easy interfaces," he says. "They must be intuitive, straightforward and not take up too much time." To this end, Brother has aggressively focused on user-friendly, multifunction units for both large corporations and small offices that act as a scanner, copier, printer, fax machine, message center and, in some models, videocapture device. "These tools are designed to increase efficiencies and are highly flexible to meet a multitude of future demands," says Shulman.



A company's physical layout should promote networking as well. Wineman says the space itself should "encourage circulation and interaction, not just at the copiers and the coffee bar." She adds that the workplace of the future will be defined by fluid patterns of movement — employees moving through different groups, to different sites, etc. "The office must be a matrix of flexible spaces."

Leveraging Flexible Design

How do you design new offices for a client in a highly competitive business whose needs change almost daily according to market conditions? This futureproofing challenge was recently undertaken by Leo A Daly, the third-largest architectural/engineering and commercial interior design firm in the U.S.

When global advisory firm KPMG, a long-standing client, hired the firm 18 months ago to design its new offices on six floors of a building outside Washington, D.C., its executives had no idea how many personnel would be moving to the site. They also had no idea what workers' needs might be.

Leo A Daly Vice Presiden O'Konski describes the conundrum: those of most knowledge workers in a petitive, dynamic business, KPMG's space needs are dictated by the marke can't possibly be predicted 18 mo ahead of time. Our challenge was to d space that could quickly respond to needs *as they arise*. We needed to give a framework in which many options v be realizable."

Modularity was the key to prov KPMG with true flexibility. Schedule spring '99 completion, the new office ture four floors that have an identica of work-space types. All of the spa modular and can be easily reconfig e.g., one large office can become two s er offices, four administrative station conference room. The other two f house some permanent work space support and administrative staff as w several types of project rooms for co

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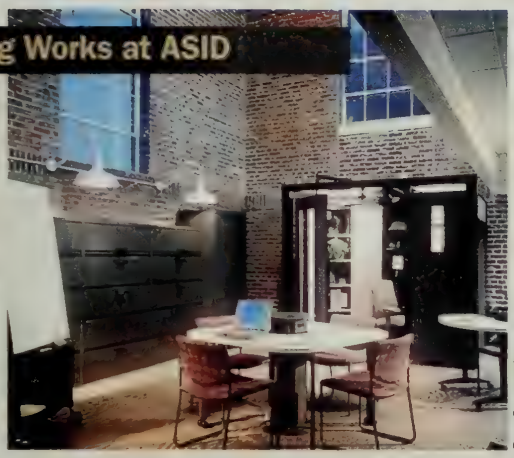


Dan Cunningham

ing some of its own vice, ASID applied concept of work- ce futureproofing to national headquarters Washington, D.C.

Prior to its recent ce redesign, ASID ployees worked in a d layout: private cubi- s with walls that didn't ve, no fluidity to the ace and no room to w down the road.

The new open-office setting offers private, temporary enclaves where employees can go when they need to. It has lots of group space, with moveable furniture and equipment: white boards and tables are on wheels to be pulled together for impromptu meetings. Filing cabinets, often visited by association workers, are located at the center of the floor to serve as a natural meeting place to exchange banter and ideas. Other features include a computer training room, a Member Office that enables the association's visiting members to work while waiting for meetings or flights, and a beautiful, state-of-the-art dining facility.

As with many organizations moving to open settings, ASID faced noise and privacy challenges. Fortunately there are a variety of cutting-edge products on the market that address these issues: sound-absorbing walls, ceiling tiles, office dividers and furniture that are attractive as well as effective.

Today, ASID's office truly reflects what the organization is and how its employees work.

ASID, which has more than 30,500 members, is the oldest and largest professional organization of interior consultants. For help with futureproofing, call ASID's referral service at ***1-800-610-ASID****, or visit ASID's Web site at* ***www.interiors.org.***

and group interaction. Meeting rooms tables with data jacks and high-end ology capabilities. There is a Client ions Center with meeting spaces, train- rooms, distance-learning facilities, that opens up to a plaza with kiosks eeds from CNN and Bloomberg.

Because so many of its employees work ent sites, KPMG planned for the new y to house only two-thirds of the staff y given time. To accommodate this, of the space is devoted to unassigned, ling-style" work settings. When people to be in the office, they'll reserve space vance with a concierge, who will make they have everything they need to get work done: a computer, a telephone rogrammed with their phone number ny files or personal items.

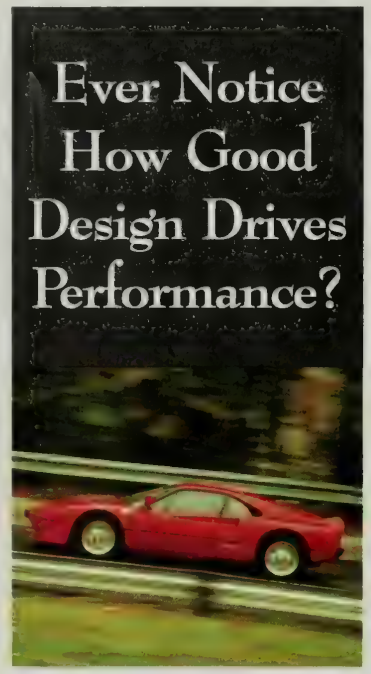
"It's a brave new world out there," nski concludes, "and traditional plans simply don't serve the changing work environment."

Strategizing for the Future

As business and technology continue to accelerate at warp speed, how can senior managers best allocate the capital they're committing to workplace redesign? How can they ensure that the work environments they build today will not become obsolete in the coming decades?

A good first step in futureproofing is involving professionals early in the strategic process. Interior design consultants can help you examine where your company's work styles are headed, anticipate the technologies that will support them and choose products that offer the most flexibility. Leveraging their expertise can help ensure that your space will accommodate your future needs — *whatever* they may be.

Christina Lambert Clarke is a freelance writer based in Northport, N.Y.



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Woolgathering

By G. Bruce Boyer

here's a quiet revolution going on in the fabric market. You can buy ofter, lighter suits than ever before. But come with deep pockets.

William Fioravanti, New York tailor to the world's best-upholstered gentlemen, is explaining what he can do for customer using some of the newest, ushest worsteds on the market. "I uld run you up a nice suit of super-80s for around $7,500," he mens casually. "Understand, $3,000 the price is solely for the cloth." u expect the customer to faint ad away right there, but he esn't. One Fioravanti client just ught seven of them.

What is this wondrous fiber that unds like a comic book hero? eaking of which, haven't you been aring about other, similar-sounding brics, all starting with "super" and me numerical designation? What is oing on?

Here's what is going on: We are ving in the middle of a quiet revolution in wool fabrics. Nothing technological about this revolution, either. 's all about money and breeding. reeding sheep, that is.

Cashmere and alpaca are back in a big way. You can expect the reintroduction of the precious vicuña before long. But at the forefront of this trend is the development and marketing of the "super" woolens.

It all starts on the merino sheep farms of Australia and New Zealand. "Wool fibers with ultrafine qualities have always been available from good merino sheep," says Charles Stewart, who runs the Savile Row cloth merchant firm of Holland & Sherry. "But as tastes have been steadily increasing for softer and finer-feeling cloths, sheep farmers have been encouraged—mainly by price—to concentrate further on selected merinos."

Before we get into the merinos, a quick lesson in wool-grading systems. In the mid-19th century a new classification called the "wool grade count system" came about to replace the previous system based on the bloodlines of the sheep themselves. The new system graded the quality of the fleece using complex formulas based on how many yards of yarn could be spun from a pound of wool.

This byzantine system lasted until 1993, when the British National Wool Textile Export Corp., which oversees such matters in Great Britain, approved a new method called the "micron system." It has since become the international standard. The micron system uses an electron microscope to measure the diameter of the individual fibers of wool, a micron being a millionth of a meter. The best fibers—those narrower than 20 microns—somewhat finer than an average human hair, that is—are designated superfine, or supers.

Confusingly enough for the customer, the number used after the word super on a grading label represents not the micron number itself, but the micron number filtered through the older wool grade count system. What's important to remember is that there is an inverse relationship between the micron count and the super number: The lower the micron count (meaning the finer the fiber), the higher the super number will be. Super-80s, the least fine of

the super fibers, are 19.5 microns wide, while super-150s, at the higher end of the spectrum, have a width of 15.5. The rare super-180s, which mills are just beginning to produce, measure 14 microns.

What does this numbers game mean for the consumer? It means that clothiers have a new legitimacy to their premium prices. If you were to buy your own worsted fabric made of super-120s yarn and take it to a tailor, you would spend $150 to $300 a yard. Note that a suit uses 4 yards or so of fabric. A super-150s fabric would run $400 a yard and up at retail. You can expect to pay $1,500 or more for an off-the-rack suit of super-120s wool, and $3,500 or more for a super-150s suit.

What you get for your money as you go up the scale (or down the micron count) is fabric that, in the higher reaches of superdom, is like wearing woven air. In the business, they call the feeling of the fabric the "hand." Traditionally, vicuña, with a micron count of 11 or 12, gives you the softest hand. Cashmere and alpaca come next, with micron counts of 12 or 13. But the supers follow pretty close behind. They're working now on producing a super-200 wool, which could come in with a micron count as low as 13. The price? If you have to ask, you can't afford it.

This is not altogether a good thing. Ultralightweight, silky fabrics call for customers willing to sacrifice practicality for elegance. These fabrics may be more delicate. They also need a lot more care and attention. Your dry cleaner will love you for buying a super-150s suit—wear it two days running and it might start to rumple. Here's a good rule of thumb: Buy that suit if it feels like nothing you've ever worn before—but only if you already have all the suits you need. ■

THE ARTS

A Cincinnati exhibition ponders the significance of plastic pink flamingos, fresh sod and how baseball diamonds are mowed.

Lawn order

By Robert Goff

Leaves of grass: exploring the varied shades of America's obsession with lawns.

AMERICANS SPEND $34 billion a year on their lawns. The holy mission soaks up ten times the amount per acre of pesticide employed by America's farmers.

Has anybody ever asked why? Yes. "The American Lawn: Surface of Everyday Life" is a fascinating exhibition that will run at the Contemporary Arts Center in Cincinnati from Apr. 4 through June 6. More than just a display of lawn-related objets d'art, the exhibit attempts to make sense of the national obsession with those modest and not-so-modest plots of fescue in front of our homes.

Although Frederick Law Olmsted, who designed Manhattan's Central Park, is credited with "inventing" the American lawn in the late 19th century, landscape scholars believe lawns in America developed as a hybrid of two traditions: the cultivated look of grand European estates and more modest and intimate colonial gardens.

"What really touches the psyche of an American is the idea of becoming a shepherd," says Georges Teyssot, professor of architecture at Princeton University and head curator of the exhibition. "The lawn becomes the equivalent of his meadow," he explains. Lawn ornaments are—you guessed it—symbolic sheep.

It's obviously gone way beyond sheep. A series of photographs in one of t exhibition's galleries displays the incre ingly intricate graphic patterns mo into the greensward of stadiums and g courses. In the television age even a la must be more than just a lawn.

Then there's the dark side of law Another gallery shows clips from t movies *Blue Velvet* and *Halloween*. Bo films show how the metaphorical inn cence of the American lawn mask frightening netherworld.

The show is wonderfully intriguing its own right, but it also presages seve new trends in the worlds of art histo and curating. For one thing, it signals t fairly recent arrival of landscape archit ture as a self-respecting art medium recent because most landscape archit ture of the last 50 years has been, qu frankly, abominable.

"Nobody can deny that all th dreary spaces people built in the 197 just don't work," says Louise Mozin a professor of landscape architecture a environmental planning at UC Berkel "There's an incredible amount of anxi and interest in how public and outdo spaces are created and what they mea

What more natural a place to be thinking about landscape history a design than in our own backyards? ■

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(After Frank got lost.)

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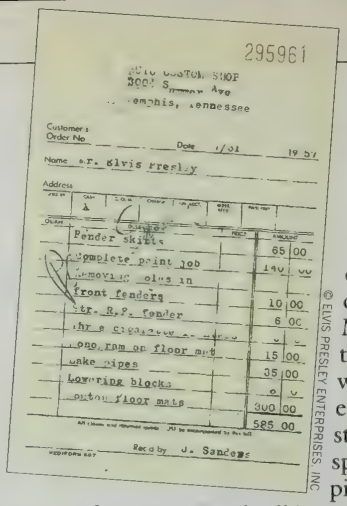
The chop shop in Stuttgart

By Morgan Murphy



Elvis' bill includes pai to match grapes mash on his Caddy's hood.

ELVIS LIKED TO GOLD-PLATE his dashboards. Liberace preferred rhinestone-encrusted paint jobs and candelabra parking lights. Karl Lagerfeld ordered a BMW to match a hotel lobby he designed (we assume he left the concierge desk off the car).

For certain kinds of people, the customized car is a natural extension of the flamboyant persona. That wouldn't be you. Or would it? The custom craze has gone far beyond Hollywood and Las Vegas in recent years. In 1997 customizations were a $19 billion market. That figure includes everything from Aunt Agnes' curb feelers to ultrasophisticated aftermarket additions. At Beverly Hills Motoring, a custom shop, the average bill for custom gewgaws is $30,000 above the price of the car.

Now the car manufacturers are starting to get in on the act, figuring that you don't have to wear a feather boa to want some distinctive detailing on your wheels. Over half of all Porsche buyers opt for one of the manufacturer's custom programs. Likewise BMW and Audi are offering custom options. But Mercedes-Benz is way out front and it seems inevitable that other manufacturers will soon follow its lead.

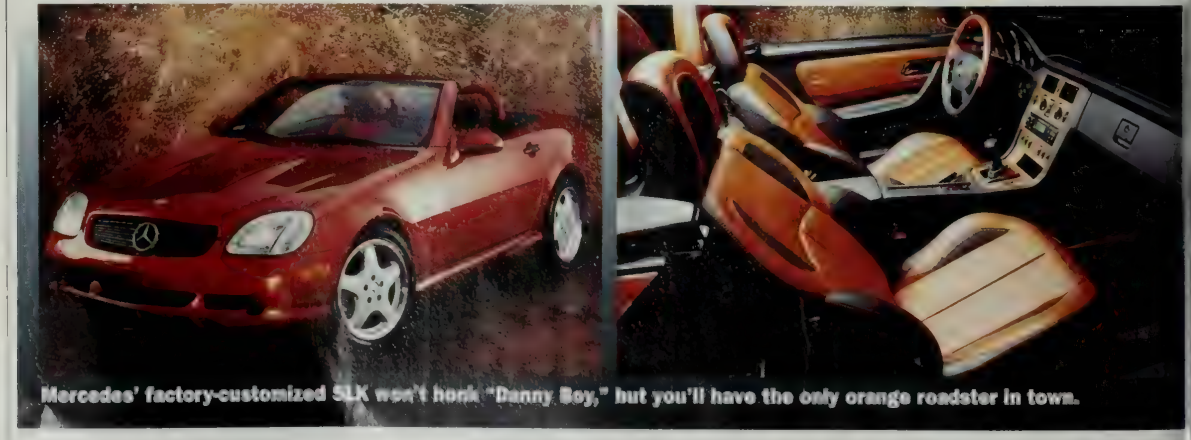
Think of Mercedes' new Designo program (you're supposed to pronounce it "dee-ZEN-yo") as the automotive equivalent of made-to-measure clothing. It's somewhere between off-the-rack and custom tailoring.

DaimlerChrysler's Mercedes operation in Stuttgart, Germany has managed to keep costs at roughly 10% of the car's purchase price by coming up with custom "packages" rather than letting the customer run hog-wild with rhinestones and candelabra. The copper SLK special edition with matching interior, which includes custom paint and trim, adds $3,900 to the car's $39,000 sticker. The same scheme on an S-class might set you back $7,000. Mercedes anticipates that the Designo market will be only 2% to 3% of the total product line, so chances are you'll be the only one in the neighborhood with an orange roadster.

It's right out of the pages of Thorstein Veblen. Lacking other ways to assert their identi people do it with th consumer goods clothes, watches, ca Mercedes discover that while consum want more choices express their perso style, they don't want spend a lot of time fli ping through paint chi and talking about carpet fiber. Th the Designo packages—with their palette of radical colors and tri combinations—answer the need, a they are designed to be incorporat into the manufacturing process. La minute delivery and assembly-li integration of green steering whe and slate-blue fenders keep the co down and allow the buyer to g behind the wheel sooner.

"And," says Designo product ma ager, Peter Patrone, "the great thing that we ran all the palettes by the M cedes-Benz credit corporation to ma sure that all these weird combinatio wouldn't destroy a car's resale value

The Designo colors planned f year 2000 models are copper, electr green, slate blue, espresso (a.k.a. da brown) and metallic black. And wh everything from wood choice (cha coal maple, natural maple, natur elm) to floor mats will be custom, may be a few more years before y can factory-order your car to hop u and down on hydraulics or ho "Danny Boy." ■



Mercedes' factory-customized SLK won't honk "Danny Boy," but you'll have the only orange roadster in town.

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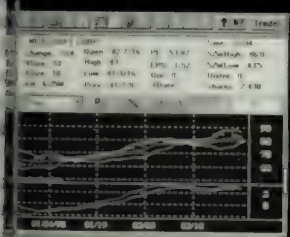

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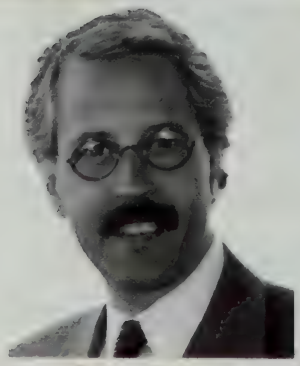

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ow a college backpacking trek led to the wiring
f the last Buddhist kingdom on earth.

Published in Bhutan

y Jessica Maxwell

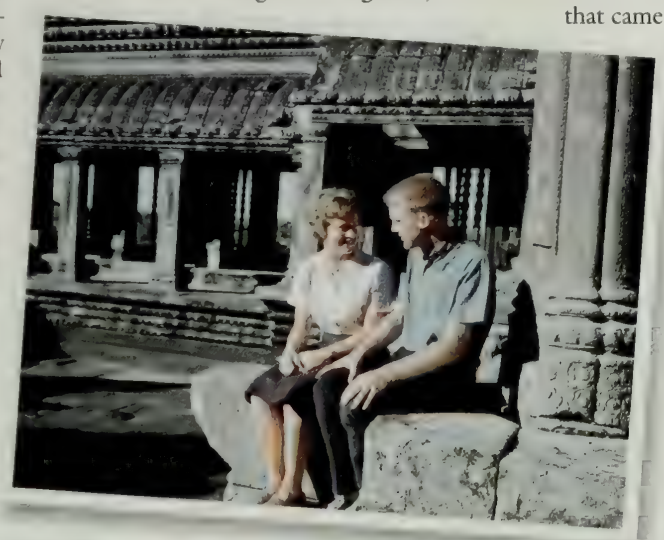
OUR BUDDHIST MONKS sat facing a nk of new computer equipment, eir robes a crimson splash against the all of gray machines. Soon the room led with the ancient rhythms of their ayers, and then one of them sprin- ed holy water on the or in front of the equip- ent. Finally, the elderly ead lama rose and tossed ncooked ceremonial rice rectly at the equipment, uch to the shock of the merican couple who d spent a year design- g, ordering, packing, ipping and assembling all. So went the bless- g of Druk Sherig ress, the first desktop ublishing house in the my Himalayan king- om of Bhutan.

Most Americans ave never heard of hutan. Almost yone who visits this val blip on the border f Tibet and northeast- n India does so on a overnment-sanctioned imalayan trek like the ne Russ and Blyth arpenter took in October 1996.

The Carpenters had been due to y home when a snowstorm ground- d their plane—a clear sign that the uddhist deities had bigger plans for em. Thirty years before, romance etween Russ and Blyth had blos- omed during a backpacking trip rough Asia when the two were tanford undergrads.

Both had retained a love for Asian ulture, particularly the Buddhist piritual principles that Russ had writ- en about in his college thesis. He as about to get the chance to do omething about them.

During the layover, an acquain- nce named Ugyen Rinzin intro- duced them to his cousin, Sonam Jatso, and Sonam's wife, Tshering. All three are part of the young, well-educated, English-speaking generation that calls itself "the dealing people" and is committed to bringing the Dragon Kingdom, as the Bhutanese call their country, gracefully into the 21st century.



Two college sweethearts wire the last Buddhist kingdom on earth.

"Like many people in their 50s, we hungered for public service [and] wanted to be part of Bhutan's development," says Russ. "We run a family publishing company called Natural World Press back home in Oregon, and we offered our services."

As it happened, Sonam wanted badly to upgrade the Gutenberg technology of his father-in-law's old religious publishing company, Druk Sherig ("Dragon Wisdom") Press. The Carpenters were home only a short while when a sizable transfer from Sonam showed up unexpectedly in Natural World's bank account. They spent every dollar on 23 boxes of equipment and shipped it to Thimphu, Bhutan's capital city. The Carpenters awaited the shipment nervously in Thimphu for two weeks, praying it would survive India's postal system. It showed up on Oct. 1, 1997.

That's when the Carpenters came to witness the oddly beautiful blessing that came to symbolize the joining of 8th-century Buddhist traditions with 21st-century technology. It's an incongruous joining, what with the publishing firm's offering, as a freebie to good customers, a version of Star Wars Rebel Assault II. The Carpenters had to reassure the Bhutanese that no sentient beings were being hurt by the violent videogame.

Druk Sherig's walls had been repainted with a brilliant frieze of the eight Buddhist good luck symbols, each carrying a special message for the new business. A hat, representing Buddha's head and his wisdom, provided good direction; a lotus flower, representing his mouth, assured that their designs would be "beautiful and liked by all"; a wheel, representing Buddha's legs, insured that the new business would "grow and travel all over the world." Fortunately, the Epson printer worked perfectly after they shook the rice out of it.

By the time the Carpenters returned to Bhutan late last year, business was pouring into Druk Sherig Press. "We've never found a country where generosity, honesty and grace are so powerfully part of the culture," says Russ. "They have what we want: better intuition, spontaneous compassion and a gentle vision of life."

"Sonam is worried to death that we're not getting anything out of this," adds Blyth. "But the gift really is ours." ■

India gears for the millennium

For billions of Asians, the end of the century has been turbulent. Country after country in the world's fastest-growing economic bloc has stumbled, including the powerhouse Japan, which experienced a contraction for the first time in four decades. Against such a depressing regional backdrop, India too has experienced a slowdown, but it has emerged relatively unscathed.

The tremors that rocked the Far East have had aftershocks in the world's largest democracy, and the situation was compounded last year by economic sanctions imposed on India by the U.S., Japan and many European nations because of its growing nuclear presence. The rupee has weakened by about 8%, and the growth rate of the economy has come down from 9% in 1997-98 to just over 5% in the current year ending March 31. The economic slowdown has affected different sectors of the economy with varying intensity. The market for color televisions has exploded, with a growth rate of over 40%, as has the appliance market, thanks to enhanced competition and reduced prices. But many other businesses are struggling due to over-optimistic projections. Two years ago, industry analysts predicted a market of a million domestic cars in 2000. After a slew of international companies, including General Motors and Ford, launched models in India, executives are realizing their market projections may be half what they expected. But that has not served as a deterrent; both U.S. auto giants have bought out their Indian partners and now own almost 100% of the equity in their local ventures. And, with an eye on low production costs, many U.S. automotive systems companies, such as Delphi Automotive Systems and Johnson Controls, have established plants in India.

The situation is, however, markedly different in the two-wheeler business. Sales of scooters increased by 4% and motorcycles by a hefty 25% in 1998 over the previous year. Bajaj Auto (www.bajajauto.com), the world's second-largest scooter manufacturer, has seen volumes rise from 794,855 to 844,234 between April and December 1997 and the same time period in 1998. In keeping with its principle of pioneering technology, Bajaj has developed the world's first four-stroke geared scooter, the "Legend," which is more fuel efficient and eco-friendly than the conventional two-stroke version.

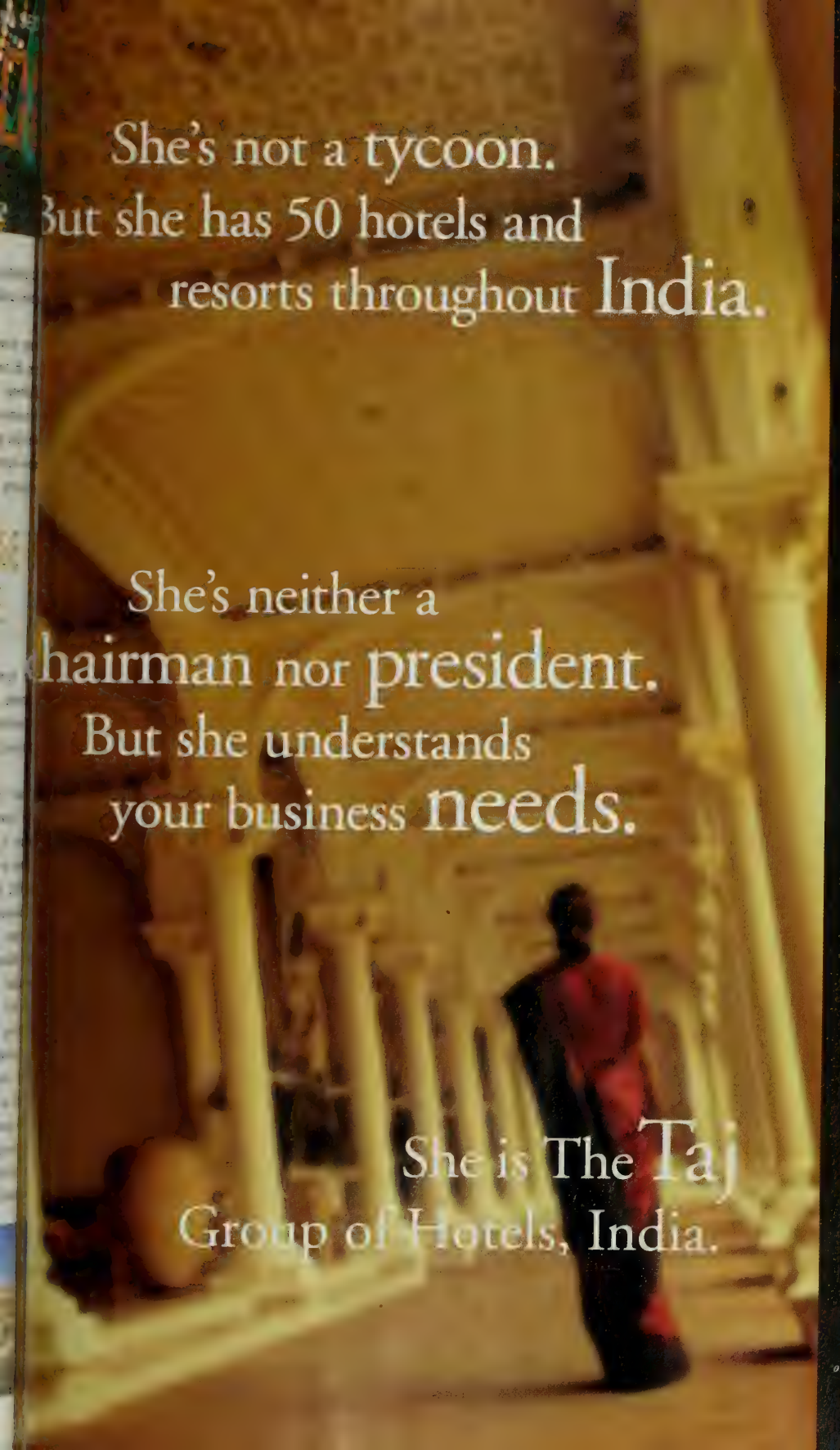
INDIA CONTINUES TO EMERGE A STABLE ASIAN PRESENCE.

At a time when much of Asia was in turmoil, the coalition government in Delhi, which is led by the traditionally pro-market, right-wing Bharatiya Janta Party, was unfortunately constrained by divisive economic manifestos. The days of patchwork policies aimed at garnering the populist vote seem to be over, and Premier Atal Bihari Vajpayee has developed several pragmatic economic policies. As India continues to move away from its familiar socialist tendencies, Vajpayee has enacted hard-hitting measures aimed at limiting the role of the state. In February, he announced a first-time-ever slash in subsidies of rice, wheat, sugar, fertilizer and cooking gas, which brought about a corresponding price hike. This move was aimed at reducing the fiscal deficit, yet it met with so much resistance across the political spectrum that Vajpayee relented and announced a slight rollback. However, he had scored an important psychologic political point by standing behi capitalistic ideas.

Vajpayee has also heavily pro infrastructure development. He re announced a national superhig project to link both the northern with India's southern tip and the with the east. To woo foreign inve some infrastructure projects permitting 100% foreign e participation. A global govern bond issue to overseas Indians fund to invest in infrastructure pr drew over $4 billion.

One of the industries that earn higher revenues with b infrastructural support is tou Although the target was to have million visitors a year by 2000 number has settled at around million for the last two years. Asian meltdown has also stalled chain expansion into India, destinations in the Far East greatly reduced their prices encourage tourism. However, largest national hotel chain, In Hotels — better known as the Group — has taken advantage o international chains' stagnancy initiating a total consolidation restructuring process and drawin

The Taj Mahal Hotel — Mumbai



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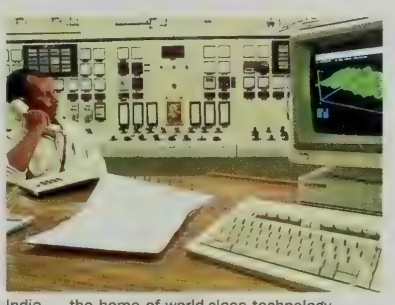
INDIA CONTINUES TO PUSH ITS GLOBAL INVESTMENT POTENTIAL.

new and innovative marketing and operational plans. The Taj has restructured its 54 properties into three tiers, luxury hotels, business hotels and resorts, and it has just unleashed a major multimedia ad splash.



India — the home of world-class technology

The government, concerned at the potential loss in tourist earnings, has declared this year to be a "Visit India" year. "Through high-visibility advertising and promotional campaigns, industry and government can work together to market Indian destinations to upscale audiences in the U.S. and Europe," says R.K. Krishna Kumar, managing director of the Taj Group.

Another major foreign exchange revenue earner, the software industry, has had boom times, thanks largely to the Y2K problem. Export earnings have shot up 70% in 1998, from $1.34 billion to $2.26 billion. Indian software companies are currently processing orders for over $2 billion of Y2K projects and many are offering packages to handle programming problems caused by the euro currency conversion. Mainly because of these two unique situations, the software industry is expecting to earn $4.16 billion in export earnings in 2000. Microsoft has recently establi[illegible] subsidiary in Bangalore and a tra[illegible] center in Hyderabad, confirm[illegible] India's reputation as home to some[illegible] the world's top software specialists.

There are many indications that, despite Asia's financial instability, foreign corporations have not lost faith in the Indian government's ability to deliver. Foreign direct investments in India have remained at the $3.3 billion mark for the last two years. Among those who have major plans for India are conglomerates such as GE and information technology giants such as IBM and Compaq. IBM, which has a joint venture with India's largest business house, Tata, has set up another venture, IBM Global Services, to offer specialized software support. It has also expressed an interest in buying into the equity of Computer Maintenance Corporation, a company set up by ex-IBM executives when IBM left India in the early seventies.

The East Asian crises led some to believe that foreign institutional investors would take their capital out of Indian stock markets, leading to a crash; however, the markets remain relatively stable. As a result, India continues to push its global investment potential. At the February annual meeting of the influential World Economic Forum, which was attended by over 1,000 CEOs and 40 heads of state, Indian industrialists underscored the fact that globalization was no longer an option, but a fact. Additionally, the Confederation of Indian Industry (CII), the top agency for Indian business, plans to heighten global investment participation in India by hosting several events in 2000. "I think that such concerted interaction has many spin-offs. One of them will be in enhancing the knowledge about investment opportunites in India, which may lead to greater levels of foreign investment in industry," says Rahul Bajaj, chairman and managing director of Bajaj Auto, who is also the chairman of the Council of the World Economic Forum.

There is a strong sense of optim[illegible] that U.S. economic sanctions [illegible] end in a few months, remo[illegible] impediments in the flow of Ame[illegible] investments and technology. [illegible] optimism stems from continuing [illegible] between the U.S. Deputy Secreta[illegible] State, Strobe Talbott, and the In[illegible] Minister for External Aff[illegible] Jaswant Singh, aimed at normali[illegible] commercial ties between the [illegible] democracies. Already the Internati[illegible] Financial Corporation, the World [illegible] affiliate that invests in the corpo[illegible] sector, has cleared a $35 mi[illegible] investment in a mining projec[illegible] eastern India. This is the [illegible] investment done by the IFC in I[illegible] since last April's nuclear tests.

Sophisticated telecommunications facilitate t[illegible]

The coming months will hold [illegible] more allure to potential investors [illegible] India continues to emerge as a st[illegible] Asian presence. With its str[illegible] technology workforce, impro[illegible] infrastructure and tourism indu[illegible] and a forward-thinking busi[illegible] community, India is moving into [illegible] next millennium – poised to b[illegible] powerful economic force in the Eas[illegible] Hemisphere.

[illegible] representative for India

THERE IS A STRONG [illegible] IN THAT U.S. SANCTIONS WILL END

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somewhere

in the world,

the sun rises on

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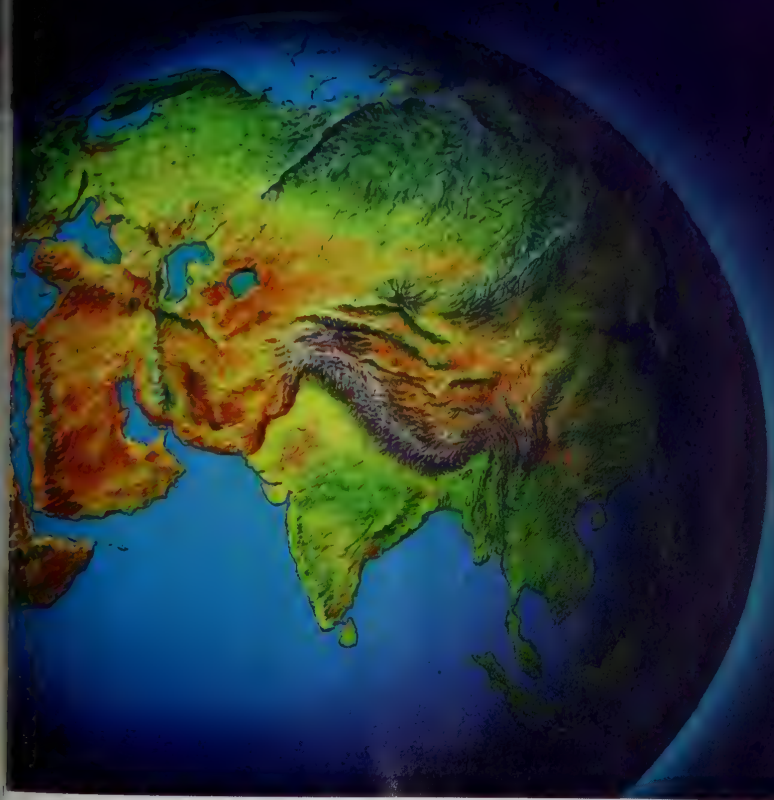

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I ain't foolin' around—I'm building assets

Most celebrities get rich off their names, but a few get rich off a business franchise built around a name. Rap star Puffy Combs aims to fit in the latter category.

By Robert La Franco

It's nearly dusk outside Silent Sound studios in Atlanta, and Sean (Puffy) Combs, the 29-year-old boss of Bad Boy Entertainment, is obsessing about his business—specifically, its image. Time to "polish up the ride," the $300,000 custom-made Bentley Azure silver coupé that will carry the superstar mogul of rap to his newly opened Justin's restaurant. The car isn't the key thing—it's the *shine*. An adoring crowd will expect Puffy glamour, and he doesn't want to disappoint.

Every performer and artist fixates on his or her image—it's what sells books, albums, movie tickets, T shirts, sneakers. But Combs is preoccupied with more than his own. He's trying to build an image for a business enterprise, of which his own rap music act is just a part. Other music acts he has signed up are another part; so are the restaurants; so are a budding talent agency and a fashion licensing business. Combs doesn't want to be just another performer collecting royalties. He wants to own a business that has its own valuable brand name.

In the celebrity-driven, hip-hop world of 1990s music, no one manages an image, exploits it and protects it better than the young man known alternately as Puff Daddy and as Puffy. "Floss," as a sheen of success is known to hip-hoppers, has helped propel Bad Boy to $130 million in annual sales—and make it rap's most valuable label.

Call it what you want—floss, star power, the Puffy persona. It's what brought several hundred diamond-speckled members of Atlanta's social and show business elite to the mid-January opening of Justin's in Atlanta. It's what lured Ronald Perelman and New York summer sophisticates to Puffy's white-wear-only affair at his $2.2 million East Hampton estate. It's what turned his 29th birthday party at New York's Cipriani Wall Street restaurant into an evening with a thousand martini-toters.

PHOTOGRAPH BY ANDREW BRUSSO. STYLING BY ANDREA LIEBERMAN. GROOMING BY BARRY M WHITE FOR ZOE ULTRA. HAIR BY JOE TORRE. TIE AND SHIRT BY CALVIN KLEIN

Sean (Puffy) Combs turned celebrity into an asset. His secret: pump the music, flaunt the wealth.

Floss doesn't come cheap. The birthday party cost $600,000. Combs' presidential suite at the Swissôtel in Atlanta ran $2,000 per night for ten days. Tossed on a chair in the suite was a tiny black mink coat with gold buttons belonging to his 5-year-old son, Justin. The Bentley (Combs has two, the coupé and a convertible) has TV screens in the headrests, a DVD player and, of course, a sound system.

"It ain't about spendin' money, I ain't foolin' around," bristles Puffy at the mere hint of waste in Atlanta. "I'm recording albums. I'm opening a multimillion-dollar restaurant. I'm building assets."

And he's building fast. Puffy's album, *No Way Out*, powered Bad Boy to a fiscal year ending last June in which it outsold Madonna's musical empire, Maverick Records, and Russell Simmons' bastion of rap, Def Jam. It was one of the first rap albums to make the top ten overseas and hit number one in markets like Italy and Scandinavia.

Rap music has reached far beyond its ghetto origins into suburbia and the mainstream. It is now outselling country music. The Puff Daddy and the Family Tour was the most successful in rap history, generating $15 million at the box office.

Now Puffy, a unique blend of businessman, producer and performer, wants to venture beyond sound—and put his star brand on everything from food to fashion. "He loves business," says Benny Medina, Puffy's manager of three years. "But he understands the cachet of stardom and the power given to him by superstardom."

He understands brand extensions. Combs is forming a partnership with celebrity lawyer Johnnie Cochran to expand his management business beyond recording artists to professional basketball players. He also publishes *Notorious*, a 150,000-circulation magazine for upscale urbanites.

To crack the food business, Puffy hired Denise Bonds, a well-known New York soul food chef and consultant. The third of his upscale Caribbean-cuisine restaurants (the first is in New York) will open soon in Chicago. Combs also plans a line of frozen food, condiments and juices.

He recently launched a clothing line

Jerry Seinfeld's got the purest comedy brand in showbiz. So where does he sell it next?

Please, I'm surfing

The bar at the Four Seasons Hotel in Beverly Hills is packed with the predictable designer suits and perfectly tanned bodies. To their owners, a celebrity sighting is meaningless. Yet, one by one they lock onto Jerry Seinfeld strutting his way to a corner table. Seinfeld has a tan, too, but he's fresh from Hawaii and stuffed into a crumpled sweatsuit and T shirt. Seated, he hoists a size 10-and-a-half Nike onto the edge of the table.

Same old Jerry, the most powerful person in television. He's got more clout than Bill Cosby, more currency than Norman Lear and more appeal than Roseanne. Some might say he's got more recognition than Disney. Jerry Seinfeld, in fact, may just be the purest brand in entertainment.

"Every human being is a brand," Seinfeld says, pulling a cucumber out of his Virgin Mary. "The way you socialize, who you know, what you say. I just had the good fortune of being in this culture when there was a market for nice, funny guys."

Nice, funny guy is a brand Seinfeld has perfected. When developing his eponymous sitcom for NBC in 1989, there was thought given to making his lead character a teacher. Nah. As himself, he was a successful comic, and if you have a brand that works, the best way to manage it is to leave it be.

And when it came to selling, no celebrity was better at it last year than Jerry Seinfeld. Forbes estimates that he and Larry David, co-creator of *Seinfeld*, will split some $600 million from the show's $2 billion in syndication revenue. For the record, they haven't seen all that money yet, but they did *earn* it in the 1998 sale to TV stations.

"I'm still amazed by what happened with the show," says Seinfeld. "When we put it in front of them, it was like dogs at a food bowl."

Seinfeld retired the show in May when he was still number one on TV. Then in August he buried his comedy act in an HBO mock funeral. Is this like Michael Jordan retiring at the peak of his game? Sort of, except that there is no physical reason why Seinfeld, 44, can't keep performing for 30 years.

Since the "funeral," he has been courted by every producer in the business. NBC would love to have him on late-night or on an afternoon talk show. Castle Rock, the producer of *Seinfeld*, has an open invitation for his return. It will have to wait.

"I don't know what I'm going to do next, but I do know how I'm going to figure it out," he says. "I stress the fundamentals: stand-up. You have to shut it down to build it up."

For now that means long nights at billiard tables in Manhattan. He surfed for the first time in Hawaii. One thing he's not doing, he says, is looking at sitcom scripts. Instead, he ponders creating a boutique advertising agency; he produces and stars in American Express commercials, and he observes himself and his surroundings for new material.

He may even collaborate with Sean (Puffy) Combs. After they posed for this issue's cover, Seinfeld asked Puffy to lay some of his famous beats beneath the jokes on his existing comedy album, with an eye toward rereleasing it. Seinfeld's label, Universal Records, is cautious. It fears the existing albums—many sitting unsold in stores—could be returned in favor of the new one.

Whatever his new act, he assures us it will be the nice, funny Seinfeld brand that sold so well before, albeit a little older, wiser, and certainly, richer. Will he still have it? The final show of his series was mildly disappointing, and his Super Bowl commercial was confusing and not funny. But huge success affords a long and happy wind-down. Ask Bob Hope.

"Everything's a potshot," muses Seinfeld. "But change is okay, people can handle it. They see puppies grow into dogs. They don't flip out." –R.L.F

The human brand:
More clout than Cosby, more appeal than
Roseanne, more recognition than Disney.

called Sean John, and hired a former Ralph Lauren marketing executive to run it. Jeans, jackets, collared shirts and T shirts will be sold in Macy's, Bloomingdale's and specialty stores like Fred Segal. Puffy will promote the line in his videos, concerts and personal appearances. He's also courting film roles, establishing a TV and film production arm, and exploring new media delivery systems, such as the Internet.

Star power, star branding. All performers grope for it, beginning when they're captive vendor to a producer or business owner who keeps most of the spoils. Screen stars were so situated in the days of Louis B. Mayer; so were Motown singers in the 1950s; professional wrestlers are today *(see p. 216)*.

In Act II the performer gets an agent and extracts a hefty share of the economic value contained in celebritydom. Professional basketball players get to keep half of their league's revenues. Tom Cruise got $70 million for appearing in *Mission Impossible*, which is almost equal to what the company that financed the movie netted. Famous chefs seem to do better than the silent partners who finance their kitchens.

In Act III the performer leverages celebrity into ownership of the business. That's what Martha Stewart is all about. Sean (Puffy) Combs is following in her footsteps, but tracing them backwards. He started out as a business owner, then became a star.

Sean Combs was born in Harlem and raised in Mount Vernon, N.Y., where his mother moved the 3-year-old and his sister after their father was murdered. As a kid, Puffy danced at impromptu hip-hop parties in schoolyards and parking lots.

He attended Mount St. Michael Academy, a prestigious high school in New York City, and studied business at Howard University for two years. But Puffy favored scamming to cramming, using grant money to rent New York nightclubs and hire DJs for parties.

In 1992 he met Andre Harrell, who ran Uptown Records, a label then owned by MCA Records. The 19-year-old Combs moved into Harrell's New Jersey home and helped him throw extravagant parties. It was Puffy's first taste of "ghetto fabulous." Within two years Harrell made him a vice president of A&R in charge of finding and shepherding talent plucked from the ghetto and elsewhere.

Combs' first success was Jodeci, a four-member group from North Carolina that he turned into a gritty alternative to the saccharine Boyz II Men. He had them wear pants below their navels and chains hanging on bare chests. Then he transformed Mary J. Blige, a singer from the projects in Yonkers, N.Y., into an R&B/ crossover. Both became top sellers

The restless Combs want Uptown to branch out into tougher sounds of rap. Harrell, fear Puffy's ambitions, fired his prote without warning in 1994.

Combs found a new benefactor Clive Davis, who still runs BMG's Ar Records. Davis and Puffy refuse to cuss the details, but industry sour say Davis paid Combs $1.5 million a gave him creative control of his o label, an unheard-of liberty for son one so young. Combs has since hi Andre Harrell to work for him.

Combs went straight for the r market and the Notorious B.I. whose real name was Christoph Wallace. He was Combs' best frie soulmate and prime musical ass Wallace, a former drug dealer a thief, was the "real thing." Wh Puffy produced and released B.I.G first album, *Ready to Die*, it was fill with the raw and tragic reality of W lace's life. *Ready to Die* became a r classic, selling 2 million copies.

In 1997 Wallace was murdered Los Angeles in a hail of drive-by b lets. Puffy, riding in a car in front, r to his side, and stayed there until died in the hospital. An album the t had just completed, *Life After Dea* sold 4 million copies in the U.S.

Even when he was gone, it w Puffy's tribute song to his pal, "I'll Missing You," that drove Puff 1997 *No Way Out*, his debut as a p former, to 5 million in U.S. sal Puffy packaged and produced it.

Puffy now talks of being the bla Frank Sinatra. He certainly has t bad-boy retinue. Sinatra was idoliz by millions of aspiring ghetto kids. during his 40-year career, his popul ity swung from swooning highs gutter lows. All along, fans gulp details of Sinatra's swanky lifestyle a scandalous love affairs.

Puffy has already surpassed Sina with his attention-getting lifesty Parties he threw in New York on l rise to riches were frequented prominent New York drug dealers. January a melee broke out at his Sup Bowl party in Miami, injuring seve fans. When rapper Tupac Shakur w murdered in Las Vegas in 1996, it w

MO DAOUD

Nothing sells like sheen. Puffy in his element.

"Mildred, cancel the Forbes invitations"

Clive Davis, the 65-year-old chief executive of Arista Records, is turning a subtle shade of crimson. In his left hand he clutches a copy of *Icon* magazine with a supersized picture of himself on its cover. In his right he holds the phone he's using to simultaneously berate his publicist and a FORBES editor, both 2,500 miles away.

"A sidebar? I'm a sidebar to Puffy?" Davis screams from his Beverly Hills hotel room. "Do you know that Puffy works for me? Puffy comes to my Grammy party! Puffy comes to my parties in St. Barts! I have not risen to this status in the industry to be a sidebar to Puffy!"

Immodest? Perhaps. Egotistical? Sure. But he has a point. Clive Davis is everything Sean Combs aspires to be. Never mind David Geffen, the showbiz billionaire that Combs holds out as the endgame. Geffen is a bit out of Combs' reach right now. Davis is not.

Arista, a unit of Bertelsmann Music Group (itself part of a German publishing giant), owns half of Combs'

Clive Davis and his gold records. Who's the boss?

Bad Boy Entertainment. Arista also owns half of LaFace Records, the label run by R & B hitmakers Kenneth (Babyface) Edmonds and Antonio L.A. Reid. It has record deals with Whitney Houston, Sarah McLachlan and, through Arista Nashville, Brooks & Dunn. Last year Davis' extended family racked up $450 million in album sales.

How? Davis (who, one aide jokes, thought the CD was named after him) has two of the best ears in the business—and a pit bull approach to business. A lawyer, he joined CBS Records (now part of Sony Corp.) as assistant counsel in 1960. His first job was keeping Bob Dylan, the rebel folksinger, under contract. Then he defended the Columbia House Record club from antitrust lawyers. By 1967 Davis had leapfrogged over colleagues and was named president.

His timing was nice.

America was in the throes of cultural revolution. At the 1967 Monterey Pop Festival, Davis heard Janis Joplin's band, Big Brother and the Holding Company. He immediately signed Joplin to a record deal. He leveraged that connection into deals with Carlos Santana; The Grateful Dead; Blood, Sweat & Tears; Chicago; and, later, Bruce Springsteen, Billy Joel and Aerosmith. Columbia prospered.

Despite the success, Davis' tenure lasted less than a decade. He was fired in 1976 after being investigated for expense account violations (he was exonerated). A year later he took the helm of an irrelevant Columbia Pictures record label, renamed it Arista and got 20% of the label's equity. BMG bought Arista in 1979.

Once again Davis used his ears. Hits came from Barry Manilow, Neil Diamond and Aretha Franklin. Then, in 1983, with soul singer Whitney Houston, Davis began his run at R & B and rap, which led to his, er, employing Puffy. –R.L.F.

---

ought to be the result of an East past/West Coast feud in which Puffy as a central character. But Puffy has ver been implicated in any of the olence around him.

"Rap music is a contact sport," says eginald Dennis, former music editor the *Source* and now launching his vn magazine, *Manifest*. "You learn to cept that when you get into it."

But Puffy is much more shrewd an Sinatra, who signed a document ving up 43% of his income for years bandleader Tommy Dorsey and his anager.

When Combs' platinum sales started piling up (Bad Boy scored more consecutive gold and platinum albums than even Berry Gordy's Motown had in its early days), he renegotiated with Arista. Puffy and his advisers were too tight-lipped to even discuss previous reports, but in 1996, sources tell us, Davis gave him $10 million, a 50% ownership stake and the right to buy back his master recordings and Arista's 50% stake in 2003. Last year, with close to 20 million CDs sold from Mase, B.I.G. and Puffy's own album, he hit Arista for another $55 million as an advance against future earnings. This time he consulted numerous industry entrepreneurs, including billionaire David Geffen. "I told them they had to make things right. I wanted to be very, very rich, right away," says Puffy. Davis paid.

"Puffy is making history," says Davis. "He has patterned something very unique in its influence on lifestyle here and all over the world."

That is no accident. When he hit the road with his "Family" tour in 1997, Puffy produced a video promoting the show, airing it in markets he visited.

While on tour, he made daily calls to his agent at ICM to get ticket counts and sales rates. If a city was lagging, he or one of the acts went on a radio show.

As an artist and a label owner, Puffy makes his money two ways. When Bad Boy sells a CD at wholesale for around $10, Arista, the distributor, takes about 15% off the top. Then it charges back costs for manufacturing and Bad Boy's 50-person staff. After that Bad Boy deducts expenses for producing, marketing and promoting, and pays producer fees and artist royalties, say $1.20 per unit.

In the end, Arista and Bad Boy will split $4 a unit in profit on a platinum CD. When it is Puffy's own album, he makes his own artist royalty of a bit more than $2 per unit. He also earns between $2 million and $3 million a year producing songs for other acts and labels. Publishing rights for his compositions bring in $2 million.

Nice, huh? So long as units move. Any sales slowdown reduces publishing royalties—and the commercial sheen that enables him to charge $150,000 to produce a single for another label. Puffy remains indebted to Arista until he sells enough albums to pay the $55 million.

That's why he spends so much time in the studio these days. The four albums he's recording, including his own, are probably the most expensive in the business, says David Lorenz, Puffy's production manager.

Production began last winter in the Bahamas. After a month, he flew his team to Atlanta, then to Miami for a weeklong Super Bowl bash. He is finishing the albums at his New York studio (built with Arista money).

In all, Vernon Brown, Puffy's business manager, figures the albums will cost some $5 million, not counting video, marketing and promotion. The daily cost: as much as $55,000.

Puffy's entourage—all part of the floss—includes his mother, 2 sons, a current and an ex-girlfriend, friends, assistants and artists. There is a personal photographer, a videographer, 2 assistants, 20 producers, engineers and writers, a bodyguard and a writer to pen his life story.

There are ways to offset the costs. Puffy records songs, or "joints." What he doesn't use for himself he markets to outsiders. He might record them with his in-house producers, the Hit Men, or hire an outside supplier. Either way he will touch them up in the Puffy style. A song from an outside producer might cost $25,000, which Puffy can repurpose for, at minimum, $100,000. Of the 100 joints he recorded in Nassau last year, Bad Boy will need 30. The rest can be leveraged elsewhere.

Much hangs on Puffy's success as a musician. The hip-hop girl of the moment, Lauryn Hill, sold 4 million copies of her solo album for Ruffhouse Records. Her uplifting message contrasts sharply with Puffy's tales of urban drama. Meanwhile, gritty Def Jam has nine of Billboar top 100 hits. Con put out only th R&B albums, two still scrambling to 500,000 copies.

The other risk that his empire brands could overextended. T restaurant busines littered with celeb failures. Steven Sp berg and partners closed Dive, their Angeles eatery.

Back at Sil Sound, at about a.m., Combs is hu kered down amid aromatic flicker of gardenia candl Around him, a do staffers and produc bob to the mus Puffy is still, his o head sunk into his hand, his right sp ning a turntable. T track, a hopeful sale by a visiting p ducer, is soft and silky, but Puffy's thrilled.

"It's good, it's good, but my joi be draggin'," he tells the disappoin producers. "I need some crazy, ridi lous joints, joints that'll make dance."

To make a point, he whips out a t of a new find, G-Style, a rap trio fr Nashville. The sound booms and eyes pop open like saucers. He wigg his head in a wacky kind of Egypt dance move, then lays down the m keting plan: bring the group, a few B Boy soldiers and the Bentleys into T nessee, Georgia, Virginia a Louisiana. Pump the music. Toss fly Flaunt the wealth.

Let others make judgments ab taste and style and Puffy's place amo the African-American music gre Forget the Sinatra parallels. Pu prefers to talk about his brand, his power—and outdoing the bigg white rhythm guy of them all, this a billionaire.

"I'm gonna be bigger than Da Geffen," he says. "The torch has to passed to somebody. That's the o reason I'm in the game." ■

Rap to riches

David Geffen sold Geffen Records for $545 million in 1990, with $225 million in sales. Berry Gordy sold Motown Records in 1993 for $325 million, with $132 million in sales, nearly all from catalog albums. Rap labels depend on the frequency of current hits, not past hits. Estimates are based on peak value.

	Record label	Value
Puff Daddy Age: 29	Bad Boy Records, with $130 million in fiscal 1998 sales is the most reliable and diversified hitmaker. If history continues to repeat, Puffy's platinum cachet will keep him on top.	$250 million
Russell Simmons Age: 41	Def Jam Records, at $180 million in sales, launched with Public Enemy. Now it is hot with DMX, Jay-Z and Foxy Brown. Universal Music Group recently purchased the 40% it didn't own from Simmons and partner Lyor Cohen.	$240 million
Master P Age: 28	No Limit Records, with $120 million in revenue, is the only major rap label owned free and clear by its founder, Percy Miller. Miller, like Puffy, is a major producer, but he records only rap. There is no proof it can sustain its recent run at the charts.	$230 million
Chris Schwartz Age: 37	Ruffhouse Records, with sales of $126 million, was an instant force in hip-hop in the early 1980s with Kris Kross and Cypress Hill. Formed a partnership with Columbia Records in 1986. The label is hot, but dependent on the Fugees and its spinoffs.	$175 million

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Martha Stewart

- *Martha Stewart Living* magazine circulation: 2.1 million
- Web traffic per week: 925,000 visitors
- Estimated 1999 revenues for Martha Stewart Everyday: $1 billi

It takes a fair amount of effort to convert mere celebrity into brand equity. Entertainers, athletes, authors and politicians work pretty hard at it.

Star power, star brands

By Ben Pappas

"Let's party!" bellowed Minnesota Governor Jesse (The Body) Ventura from the Target Center stage two months ago. A capacity crowd of 14,000 roared as the onetime pro wrestler, clad in a Jimi Hendrix T shirt and skull-and-hoop earrings, struck up the band. Rock music blared as the inaugural festivities drew to a close.

Politics? No, the inaugural antics could better be understood as an exercise in brand management. Someday the honorable public servant will reenter private life, where his earning power will be a function of how much attention he has attracted in the meantime.

Indeed, Ventura isn't waiting until the end of his term to start capitalizing on his name. Since the election he has signed a $500,000 contract for an autobiography. Meanwhile, the governor has set up Ventura For Minnesota, Inc. to license Ventura products and get injunctions against bootleggers who have made as little as $200 selling cards with the governor's image. Now there is an official line of Ventura action figures due this spring from Toy Boy Man: the governor, the Navy SEAL and the coach.

Across the globe and far from any stage, Ginger Spice, née Geri Halliwell, embarked on her new job as a United Nations' goodwill ambassador to advocate women's rights around the world. Her volunteer work for the UN will not, however, get in the way of her career as a singer. Indeed, it may help her, since the UN may attract some press attention—and press attention is valuable to an entertainer. Last year Halliwell signed a $3.2 million recording contract with U.K. music giant EMI.

"It's not income that makes me valuable, and it has nothing to do with the fact that I am an entertainer. I am the head of a company."

–Martha Stewart

It is a function of our media-rich age that people are expected to turn fame, even notoriety, into cash. Celebrities cash in by building brand equity—name recognition—and then attaching that equity to some salable product or service. It could be a book, a speech, a doll or a line of latex house paint. It could be four entirely different things at once. Celebrity is sometimes fleeting, so if you are lucky enough to achieve it you should

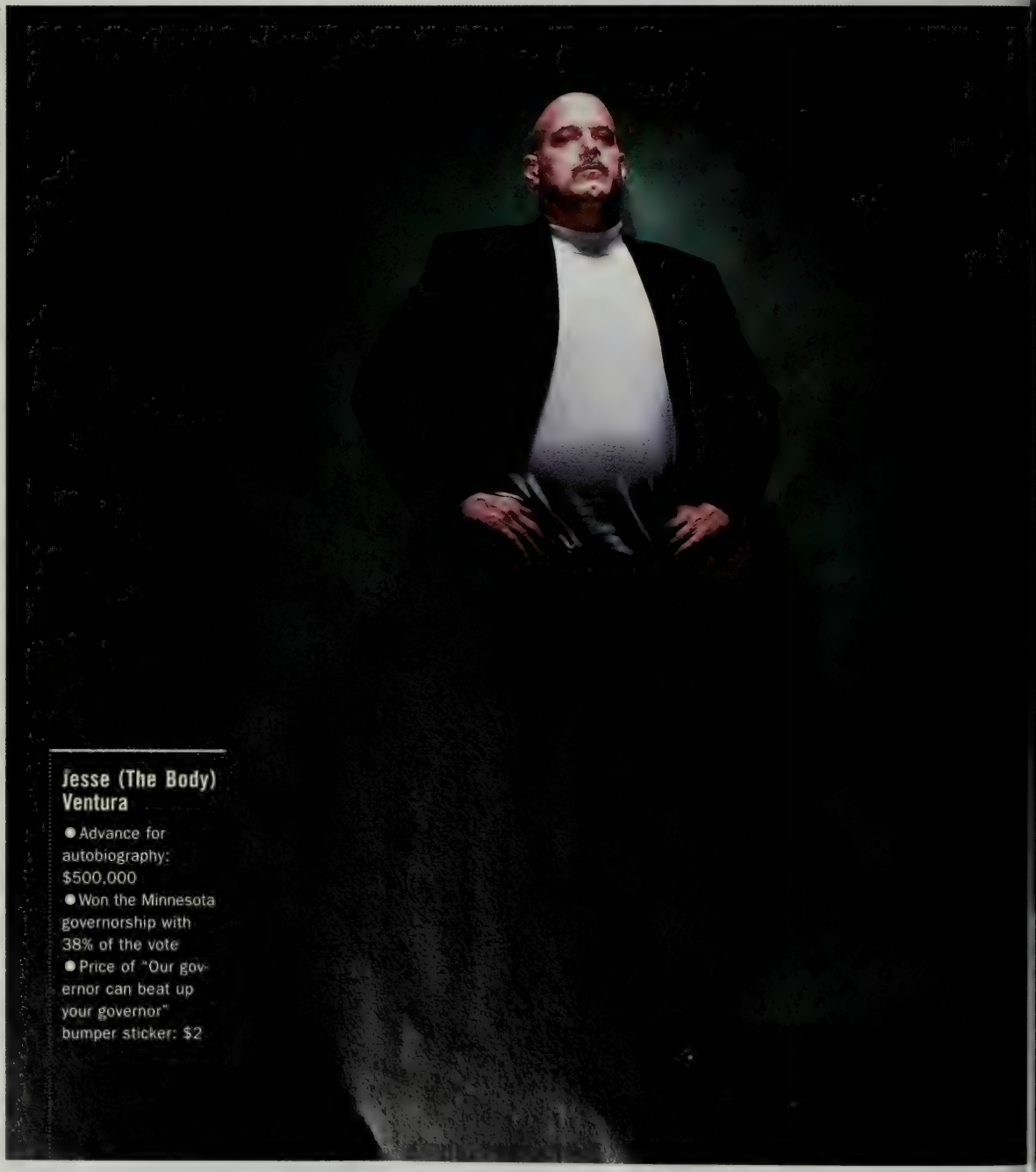
PHOTOGRAPH BY GEORGE LANGE. STYLING BY INGE FONTAINE FOR THE AGENCY NYC. HAIR AND MAKEUP BY EVA SCRIVO

exploit it in as many ways as you can, as quickly as you can.

Most celebrities get that status with their looks, their musical abilities, their acting talent or their athletic prowess. But some achieve it solely from their capacity as public servants, and some with scandal. It is entirely within our expectations that a Jesse Ventura, a Marcia Clark, a George Stephanopoulos, even a Monica Lewinsky, would capitalize on their name recognition by selling something. In our master ranking of the nation's most commercially powerful celebrity names, which begins on page 203, we have a fair sprinkling of ex-politicians and other public figures, along with performers, athletes a creative types.

Today's big stars no longer rely just one revenue stream. The l entertainers are platinum-level sing who become bestselling poets a movie stars. Or athletes with rec companies and fashion lines. Or moguls who establish sports agenc

PHOTOGRAPH BY ANDREW BRUSSO



Jesse (The Body) Ventura

- Advance for autobiography: $500,000
- Won the Minnesota governorship with 38% of the vote
- Price of "Our governor can beat up your governor" bumper sticker: $2

Jennifer Love Hewitt

- Worldwide gross of debut film *I Know What You Did Last Summer*: $100 million
- Option price for Hewitt's first film pitch: $500,000
- Fall 1999 TV salary: $100,000 per episode

PHOTOGRAPH BY GEORGE LANGE. STYLING BY STACY YOUNG FOR FRED SEGAL AGENCY OF BEVERLY HILLS. HAIR AND MAKEUP BY BRIGETTE JACKSON FOR BEAUTY & PHOTO. DRESS, SCARF, TOP AND SANDALS BY GIORGIO ARMANI. DIAMOND PENDANT FROM ASPREY & GARRARD, BEVERLY HILLS

ıd toy companies. All have their ghts on building brand equity, much e way Coca-Cola or Buick builds rand equity.

Earlier eras had crossover acts. rank Sinatra leveraged his voice into successful acting career, as did Elvis resley a few years later. But they ere the exception. Usually when ars branched out, they did so solely to stoke sales of the core business. The Beatles didn't make the low-budget flick *A Hard Day's Night* to become movie stars. It was made to juice record sales.

It's different now. Expansion projects now are hatched strategically to bring in more bucks and build brand recognition. The fans who chaotically chased the Beatles in 1963 have been replaced by carefully choreographed extras in the Spice Girls' $25 million film *Spice World*. The branding works: Of the estimated $65 million the Spicers grossed in 1998, only $30 million came from music sales. The rest came from the movie, books and merchandise.

After Jewel Kilcher's 1995 debut album *Pieces of You* sold ten million

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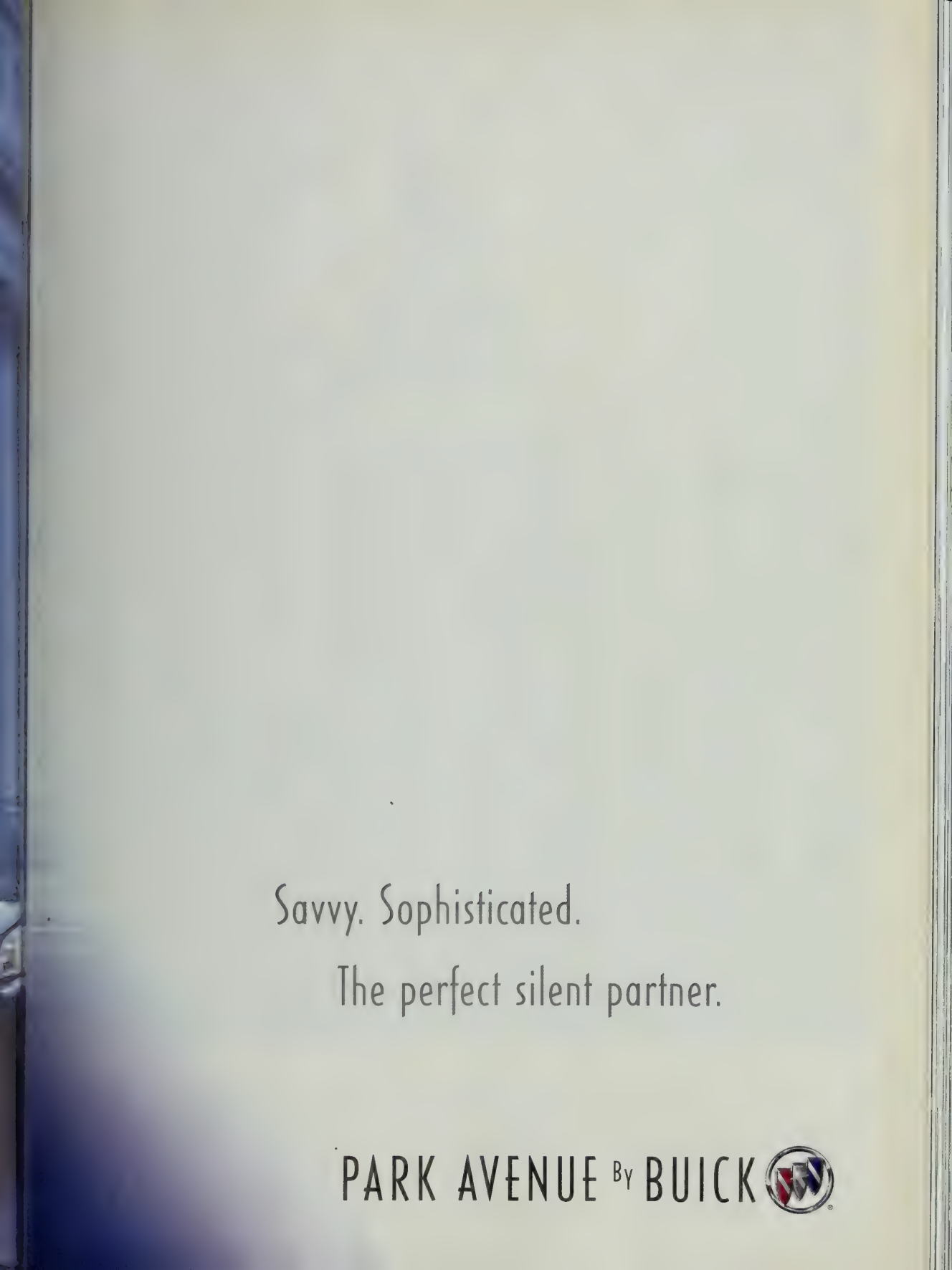
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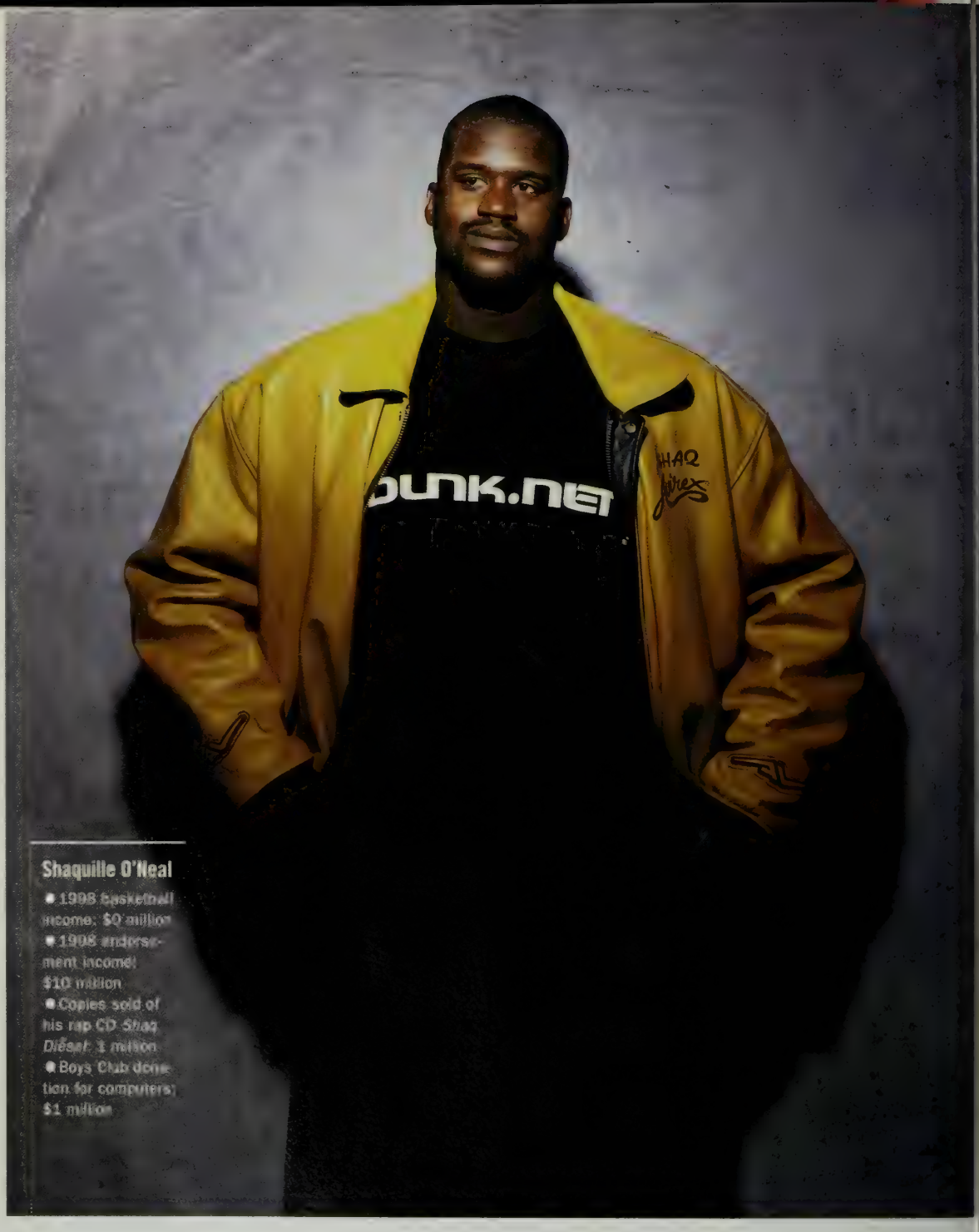


copies, she followed up with a book of poetry. Critics scoffed when Jewel released her slender 1998 volume, *A Night Without Armor*, but it was Jewel who had the last laugh. The book earned her a $2 million advance and sold 500,000 copies. Next: a series of autobiographical stories due in June. This summer, she'll launch her second major tour and in September will star in director Ang Lee's Civil War drama *Ride With The Devil*. Jewel's foray into film is an investment in brand recognition. She's acting for scale: $576 a day.

"Right now the hip thing to do is get a musician or rapper into acting role," says casting direct Billy Hopkins, who started Mado na on her acting career in 198 *Desperately Seeking Susan*. Casti Madonna back then was a questi mark. Nowadays, he says, would be considered a fool f

assing up the chance.

Rap music is burning up the charts, nd it follows that rap is giving rise to vo of the entertainment industry's ggest cross-marketers: Sean (Puffy) ombs *(see story, p. 180)* and his lesser nown alter ego, Master P. Among laster P's ventures: records, film, ublishing, clothing and toys.

But Master P's skills aren't con- ned to entertainment. Last Novem- er the rapper was calling plays on he court as a guard for the Conti- ental Basketball Association's Fort ayne Fury. He didn't need the xtra $1,500 a week, but his brief ro career gave his fledgling sports anagement division instant credi- lity. "Films, videos, record labels— 's everything [Master P] has his ands on," says Boston Celtics guard on Mercer, explaining why he gned with the Master P-founded o Limit Sports Management gency. "The way I look at it, that's ore exposure."

Do you have to succeed in your rossover act? Yes and no. Shaquille 'Neal, the 7'1" Los Angeles Lakers enter, has five rap albums, but only he first one sold more than a million opies. His film *Steel* grossed a paltry 1.7 million—just 10% of its production budget. "I made a 'D' in drama class," concedes O'Neal. "It's just a fun game."

Expensive for the movie producer, not necessarily bad for brand equity. The side projects may have helped broaden the field of advertisers who paid the athlete nearly $10 million last year to endorse their products.

Jennifer Love Hewitt worked her way up from teenybopper TV-land to the big time. The star of Fox television's *Party of Five*, Hewitt recently inked a deal for her own spinoff series to premiere this fall. The deal carries a $1.3 million guarantee and gives Hewitt a producer credit, a theatrical component and per-episode paycheck above $100,000. Good money, but Hewitt is already a seven-figure player. The surprise hit *I Know What You Did Last Summer* took in more than $100 million at the box office and propelled Hewitt's salary to $2 million a film. In addition to one new film she'll star in this year, Hewitt sold her own screenplay idea to New Line Cinema, which scooped it up for $500,000.

"I would love to get into directing one day," enthuses Hewitt. "I like doing everything." Just 20 years old, Hewitt is also breaking onto the music charts. Her single, "How Do I Deal," debuted at No. 65 on *Billboard*'s Hot 100.

There's a lot more cross-media branding than there used to be. "Rock 'n' roll set itself up as an alternative culture," explains music business veteran Danny Goldberg. "No one wanted to see Jimi Hendrix in a sitcom or a Hollywood movie." Today's audiences expect it from the Oprahs, the Puffys, the Seinfelds. Their high visibility has been bolstered by a barrage of distribution channels that didn't exist for the likes of Jimi Hendrix: cable television, videocassettes, CD-ROMs, the Internet. Of course, more distribution means more competition to get name recognition.

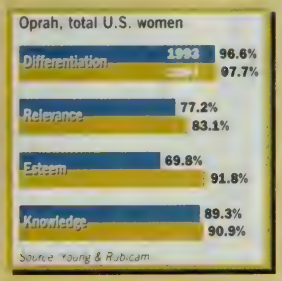
Not only are there more stars, but their half-life is considerably shorter, especially in the music industry. Once you do break through the clutter you run the risk of overexposure. Today hit singles in a radio station's rotation play 70 times a week, compared with 20 times ten years ago. Throw in MTV, movie trailers, ads, talk shows and the Internet, and a performer can receive a career's worth of exposure with one record. One-album wonders such as 1994's

A tale of two brand names

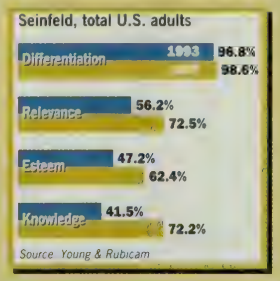
Do Jerry Seinfeld and Oprah Winfrey wake up in the morning thinking about how to get more visibility? It's probably more subtle than that. They are probably thinking about brand management.

In 1993 ad agency Young & Rubicam established its BrandAsset Valuator to analyze how brands are built and maintained. The group gauged 13,000 brands in differentiation (what makes brands unique), relevance (whether brands have meaning), esteem (how highly a brand is regarded) and knowledge (how intimately a brand is known).

We asked Belle Frank, senior vice president and director of corporate research for the agency, to apply her analysis to Jerry and Oprah. "We think it is okay to look at celebrities as brands because we believe they operate as brands," she says.



In 1993 Oprah looked like a niche for women. Her esteem grew tremendously; now she looks like a true leadership brand.



In 1993 Seinfeld's high level of differentiation indicates a building mode. In 1997 knowledge built up, making it difficult for him to turn into a serious actor.

Should Jerry open a chain of diners? Should Oprah compete with Weight Watchers? One thing that comes out clearly in the research is that even the most recognizable of brands must be very careful in making brand extensions. Says Frank: "Microsoft is strong against other brands in its category but wouldn't have an edge in a new arena, like theme parks, unless it creates a link to its category, or redefines itself. If I am really highly differentiated as a celebrity, and I am known for one thing, then I might be in a little bit of trouble taking that next leap."

In the tables, Young & Rubicam compares Jerry and Oprah on various brand measurements. –B.P.

Hootie & the Blowfish and 1991's Spin Doctors, who sold 15 and 4 million debut records, respectively, vanished from the music scene as quickly as they came.

Warner Bros. Records President Phil Quartararo says the real stars will be the ones who can create an image above and beyond their medium, like Michael Jordan. "Michael is not promoting a song or a movie, he's promoting an image. That's what stardom is all about."

It is also about leveraging celebrity into business equity. After years of reinventing herself as pop star and actress, Madonna is now a music executive as well. Her chunk of Maverick Recording Company is worth $50 million. Oprah Winfrey's Harpo Entertainment Group produces her daily talk show—and churns out feature films, TV movies and, lately, Internet content. She is approaching billionairedom. As a talk show hostess and nothing more, she wouldn't be.

The ultimate hostess, Martha Stewart, formed her own multimedia company two years ago after splitting off from Time Warner. Martha Stewart Living Omnimedia produces a TV program that airs on 185 stations and a radio show that's carried on 260 stations. Her syndicated column appears in 220 newspapers. *Martha Stewart Living* magazine has a circulation of 2.1 million. Her Web site gets 3.7 million visitors a month. In her spare time she writes books: more than 25 of them so far. Sales of household products bearing her Martha Stewart Everyday brand, everything from patio chairs to house paint, should top $1 billion this year.

How many channels of distribution can you master? "The music, movies, the clothing, it is all a part of the pie we're making," says Raekwon of the rap group Wu-Tang Clan, during a break on the set of *Black and White*, a film expected to debut this year at Cannes. Some pie. Their clothing line, Wu-Wear, grossed $15 million last year. As Raekwon pauses to consider the success of his fashion line, he laughs through his gold-plated teeth: "In the year 2005 w might have Wu-Tang furniture for sale at Nordstrom." ■

The multi-task forc

PHOTOGRAPHS TO BE GEORGE LANGE OUTLINE LINE ART BY DAVIS FACTOR OUTLINE HENRY MANCINI TEEN PHOTOS MICHAEL O'NEILL OUTLINE MARTHA STEWART

Singer, TV star, movie actress

This 20-year-old wunderkind is just beginning her multichannel career. She's the star of UPN's number one sitcom, *Moesha*, has a multiplatinum record and has now moved on to movies.

Next TV film: *Double Platinum*, opposite Diana Ross
Albums sold: 8 million
Per-episode fee for *Moesha*: $75,000
Modeling contract: $1.5 million

Jewel

Singer, author, actress

The winsome folksinger from Alaska has come a long way from singing in coffee bars and sleeping in her car. This spring she has a new movie, a new book and a new tour for her just-released album *Spirit*.

Albums sold: 12 million
Poetry book advance: $2 million
Film salary: $576 per day

aster P

apper, actor, ex-CBA point guard

netime hoopster Master P says he tired from rapping, but that won't op this producer. His record ompany, No Limit, is proving be one of the most successful artups in pop music.

evenues from sale of Master P oll: $190,000
o Limit albums sold in 1998: 0 million
lm salary 1998: $3 million

Elizabeth Hurley

Actress, model, producer

Hurley is Estée Lauder's face du jour. The British beauty who helped Mike Myers thaw in the movie *Austin Powers* also has her own production company, Simian Films.

Film price tag: $3 million
1998 Estée Lauder paycheck: $2 million
Budget of Hurley-produced *Extreme Measures* vs. b.o. take: $38 million/$17 million

Dennis Rodman

Athlete, actor, freelance professional wrestler

Rodman's showboating is a perfect fit for his new team, the Los Angeles Lakers. Teammates Shaquille O'Neal and Kobe Bryant are part-time rappers. Shaq and teammate Rick Fox also act on the side.

1999 salary with the Lakers: $500,000
Converse deal for playing in Los Angeles: $3 million
Wrestling fee: $1.5 million

Jennifer Lopez

Dancer, actress, singer

The sassy siren from the South Bronx landed her first show business role as a Fly Girl dancer on the TV show *In Living Color*. She's already appeared in nine films, including *Out of Sight*. On tap for 1999: her own pop album.

1998 box office: $200 million
Film price tag: $5 million
1998 L'Oréal modeling paycheck: $1 million

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Money and power

The majority of the celebrities on our top 100 list are either athletes or entertainers—we have 40 of each. Lately, it's been harder to distinguish between the two. This year bestselling rapper **MASTER P** spent two months playing point guard for a professional basketball team. Los Angeles Laker center **SHAQUILLE O'NEAL** spends his time away from the free-throw line nurturing his music and acting careers. This discipline-blurring isn't limited to sports and entertainment: From ex-politicians to chefs, celebrities are finding new ways to extend their brand names and increase their earning power.

ANDREW BURTON

To the 80 names in the main two categories, we have added 20 others with a diversified assortment of tickets to fame: speechmakers, pop clergy, chefs, models and purveyors of self-improvement guides, among others. We don't include politicians while they are still in office. But **BILL CLINTON** could show up here in a few years if he goes on the lecture circuit.

The 100 are awarded a power ranking that measures both income and media buzz. The income figure is what the name earned last year; the buzz—a blend of prominence on the Web, on magazine covers, on radio and television and in newspaper clippings—is, in a way, a measure of future earning power.

Low-earning **MONICA LEWINSKY** is dead last among the 100 on our money ranking but is 61st in the composite-power ranking. It may not last, but she's got visibility now, and she can presumably turn that visibility into money. Hockey player **SERGEI FEDEROV** made 46 times as much as Lewinsky last year, but didn't command the same degree of attention; he ranks 79th.

Like their wealthy brethren on The Forbes 400, even the most publicity-hungry celebrities can be reluctant to talk about money. That forces us to make estimates, compiled from interviews with attorneys, managers, agents, executives and insiders.

We count pretax gross income when it is earned, not when the checks are cut. Last year, for instance, **JERRY SEINFELD** made $267 million selling the syndication rights of his television show. He may not see all of that for a few years, but we credit him with the whole jackpot for 1998.

In the case of celebrities whose wealth is derived from private companies, we determine income based on their ownership stake. **MARTHA STEWART**, for example, undoubtedly pays herself far less than the $18 million we've attributed to her. But her estimated 85% ownership of Martha Stewart Living Omnimedia would be worth $18 million, had earnings been distributed as a dividend.

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For a more comprehensive breakdown of the stars and their earnings, see www.forbes.com.

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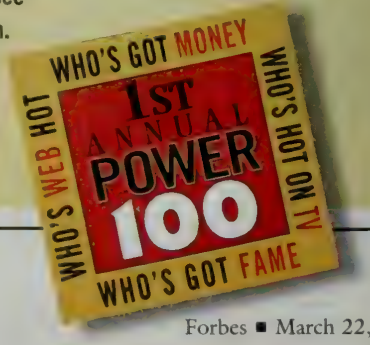

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Citation VII

Citation Excel

Name	Money ranking	Earnings ($mil)	Web mentions	Press clips	Magazine covers	TV/Radio mentions	POWER RANKING
Stephen King	31	40.0	152	8,995	0	30	27
Nicolas Cage	33	38.5	107	4,218	1	48	28
Drew Carey	29	45.5	86	4,394	1	23	29
Michael Crichton	1	65.0	57	1,589	0	13	30
Martha Stewart	51	18.0	100	7,487	1	476	31
Wayne Gretzky	57	14.6	95	9,862	0	33	48
Grant Hill	48	21.6	85	4,976	0	32	49
Arnold Palmer	52	18.1	58	7,374	0	33	50
Danny Jacobson	73	42.0	0	189	0	0	77
Deion Sanders	77	11.5	75	5,581	0	11	78
Sergei Federov	91	29.8	3	302	0	7	79
Shawn Kemp	84	12.1	27	3,616	0	16	80
Bruce Helford	34	38.0	1	173	0	0	81
Claudia Schiffer	[illegible]						[illegible]
Robert Simonds	92	14.0	5	204	0	0	98
Diane Sawyer	92	7.0	18	2,029	0	163	99
George Bush Sr.	97	2.2	1	15,072	0	166	100

Agent · Books/publishing · Director · Fashion · Movies · Music · Model · Politics · Producer · Radio · Restaurants · Speaker · Sports · Television · Theater · Writer

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Money and power

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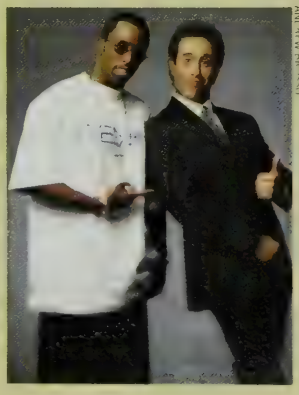

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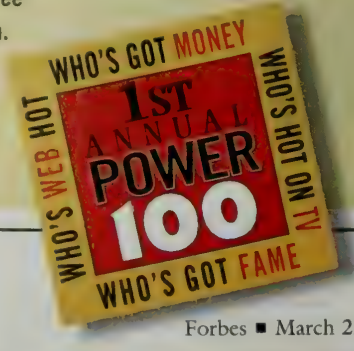
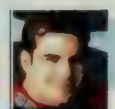
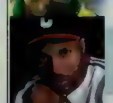


Money + Fame = Power

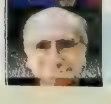
	Name	Money ranking	Earnings ($mil)	Web mentions	Press clips	Magazine covers	TV/Radio mentions	POWER RANKING
	Michael Jordan	1	69.0	777	40,671	7	492	1
	Oprah Winfrey	4	125.0	294	14,048	8	298	2
	Leonardo DiCaprio	38	37.0	496	14,207	14	182	3
	Jerry Seinfeld	2	267.0	84	7,521	8	95	4
	Steven Spielberg	3	175.0	264	16,136	0	200	5
	Spice Girls	21	49.0	1,026	22,638	3	157	6
	Harrison Ford	9	58.0	173	5,708	4	91	7
	Robin Williams	12	56.0	173	9,602	2	176	8
	Celine Dion	13	55.5	465	10,705	1	88	9
	Rolling Stones	10	57.0	332	18,136	0	61	10
	James Cameron	5	115.0	153	9,837	0	110	11

	Name	Money ranking	Earnings ($mil)	Web mentions	Press clips	Magazine covers	TV/Radio mentions	POWER RANKING
	Jeff Gordon	38	14.5	220	4,984	0	19	51
	Dave Matthews Band	47	30.0	188	3,138	0	2	52
	Martina Hingis	87	10.1	308	15,814	1	49	53
	Mike Judge	17	53.0	18	80	0	8	54
	Cal Ripken Jr.	39	14.1	40	4,981	0	93	55
	Gary Sheffield	34	17.2	78	6,387	0	14	56
	Jack Nicklaus	24	10.8	192	11,826	0	47	57
	Mo Vaughn	32	11.9	133	11,709	0	27	58
	Jerry Springer	91	9.5	172	12,141	1	178	59
	Greg Norman	41	13.6	73	8,935	0	13	60
	Monica Lewinsky	100	0.7	1,001	118,034	5	6,640	61

	Tom Hanks	27	44.0	300	9,754	3	203	12
	Helen Hunt	41	31.0	299	6,618	9	118	13
	Garth Brooks	15	54.0	313	8,793	0	100	14
	John Travolta	24	47.0	142	8,564	3	166	15
	Mel Gibson	14	55.0	213	4,930	2	41	16
	Brad Pitt	31	40.0	398	5,325	3	54	17
	Tiger Woods	44	26.8	316	28,301	1	159	18
	Sean (Puffy) Combs	16	53.5	261	5,464	1	31	19
	Will Smith	38	34.0	331	7,184	2	64	20
	Eddie Murphy	23	47.5	100	5,163	0	78	21
	Jim Carrey	17	32.5	202	6,548	1	94	22
	Mark McGwire	43	10.0	396	47,377	7	908	23
	Dennis Rodman	58	15.3	354	14,839	1	107	24

	Greg Daniels	11	53.0	1	227	0	1	62
	Peyton Manning	72	11.6	97	12,496	0	24	63
	Cindy Crawford	98	8.0	1,008	3,486	3	71	64
	Bonnie/Terry Turner	25	45.0	2	420	0	1	65
	Jerry Bruckheimer	47	22.0	56	1,203	0	10	66
	John Wells	31	35.0	6	2,085	0	2	67
	Oscar De La Hoya	90	18.5	39	3,516	0	6	68
	Alonzo Mourning	48	12.1	23	5,419	1	39	69
	Shaquille O'Neal	47	9.8	123	11,796	0	82	70
	David Robinson	63	12.9	56	3,342	0	35	71
	Ronaldo	83	10.0	1,144	8,724	0	8	72
	Albert Belle	80	10.3	109	9,941	0	25	73
	Pedro Martinez	77	10.7	81	9,472	0	20	74

POWER

	Stephen King	31	40.0	152	8,995	0	30	27
	Nicolas Cage	33	38.5	107	4,218	1	48	28
	Drew Carey	25	45.5	86	4,394	1	23	29
	Michael Crichton	4	65.0	57	1,589	0	13	30
	Martha Stewart	85	18.0	100	7,487	1	476	31
	Kevin Costner	58	41.0	75	4,642	0	48	32
	Sammy Sosa	83	10.0	233	29,477	4	579	33
	Chris Carter	79	52.0	96	1,898	0	8	34
	Ken Griffey Jr.	64	12.7	190	13,384	0	127	35
	Andre Agassi	93	15.8	147	14,843	1	28	36
	Howard Stern	49	20.0	263	4,170	0	51	37
	Dale Earnhardt	66	24.1	151	10,590	0	12	38
	Larry David	2	242.0	2	38	0	23	39
	Danny Jacobson	75	42.0	0	189	0	0	77
	Deion Sanders	72	11.5	75	5,581	0	11	78
	Sergei Federov	43	29.8	3	302	0	7	79
	Shawn Kemp	95	12.1	27	3,616	0	16	80
	Bruce Helford	34	38.0	1	173	0	0	81
	Claudia Schiffer	78	10.5	663	1,762	0	6	82
	Hakeem Olajuwon	75	11.0	58	3,944	0	18	83
	Brian Grazer	45	26.0	2	596	0	2	84
	Michael Chang	81	10.2	50	6,336	0	11	85
	Katie Couric	10	7.0	34	4,819	3	45	86
	Lennox Lewis	14	11.4	24	4,747	0	6	87
	Peter Jennings	91	7.5	36	5,376	0	69	88
	Barbara Walters	92	8.5	56	4,167	0	63	89

Name	Money ranking	Earnings ($mil)	Web mentions	Press clips	Magazine covers	TV/Radio mentions	POWER RANKING
Michael Schumacher	34	38.0	160	7,376	0	0	40
Metallica	42	32.0	546	3,599	0	5	41
Pete Sampras	71	11.7	310	20,510	0	74	42
Paul Reiser	22	48.0	31	1,642	0	23	43
Brett Favre	97	13.1	102	12,853	1	47	44
David Copperfield	76	49.5	48	1,410	0	7	45
Mike Piazza	44	12.0	161	14,224	1	48	46
Patrick Ewing	57	18.3	61	7,648	0	36	47
Wayne Gretzky	57	14.6	95	9,862	0	33	48
Grant Hill	44	21.6	85	4,976	0	32	49
Arnold Palmer	32	18.1	58	7,374	0	33	50
Geraldo Rivera	42	10.0	26	3,822	0	39	90
M. Matalin & J. Carville	88	3.4	55	5,065	0	425	91
Tom Brokaw	91	7.5	34	6,361	0	37	92
Wolfgang Puck	71	10.5	6	1,402	0	48	93
Kate Moss	96	4.5	262	2,450	2	14	94
Roy Jones Jr.	89	12.0	11	1,421	0	4	95
Colin Powell	96	4.8	27	4,453	0	132	96
George Stephanopoulos	93	4.0	51	3,334	0	429	97
Robert Simonds	88	14.0	5	204	0	0	98
Diane Sawyer	92	7.0	18	2,029	0	163	99
George Bush Sr.	98	2.2	1	15,072	0	166	100

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Yo quiero residuals

You wouldn't recognize Carlos Alazraqui at the checkout line, but you probably know his voice: It's the bark behind Taco Bell's talking Chihuahua, the pooch that delivers the "Yo quiero Taco Bell" punch line. The ads are so popular that the Mexican fast-food chain made nearly two dozen of them last year. Alazraqui's five-year contract pays him more than $100,000 a year, but the 36-year-old actor has loftier goals—using his newfound celebrity to land on-screen roles: "I don't mind being known as the Taco Bell dog guy, but that's not all I want to do."

Alazraqui had better be content with his doggie dinero. At best, high-profile voice-over work seems to lead to, well, more voice-over work.

Elwood Edwards, the source of America Online's chipper "You've got mail," is now a star among his neighbors in Orrville, Ohio (pop. 7,955). The local fame has given the 49-year-old voice-over veteran the chance to do more local radio and TV ads.

Lorraine Nelson would settle for that. Nelson, 44, has provided the helpful voice—"invalid entry"—on Lucent Technologies' Audix voice mail systems since 1986. Lucent estimates that Americans hear her voice 100 million times a day. But Nelson isn't paid based on exposure. Instead, she gets a little more than scale ($333 for the first hour of taping, $97.50 for each successive half-hour) and doesn't get residuals. "I'm not getting rich on this," Nelson says. "I'm getting by."

Then there's J. Russell Leatherman, who generates the bombastic "Mr. MovieFone" voice for the listing and ticketing service. Leatherman's over-the-top delivery has generated enough cultural currency to merit a *Seinfeld* subplot and occasional cameos reading Top 10 lists on *David Letterman*. Leatherman's hourly rate? Zilch. But Leatherman is getting by. As president of MovieFone, Leatherman takes home a six-figure salary. And the deal MovieFone struck last month to sell out to America Online values his 3.1% stake in the company between $4.6 million and $6.2 million.

–Peter Kafka

MITCH GERBER/ CORBIS

Michael Crichton $65

Crichton's been making eight-figure sums from his books and seven-figure sums from movie deals for years. His most recent coup: a 5% cut of the television drama *E.R.*

Harrison Ford $58

It's a good thing actors age more gracefully than most actresses: Ford still wins kudos for his sex appeal. Sure it's unfair, but box office receipts don't lie.

Rolling Stones $57

Will this spectacle ever stop rolling? Surprising everyone, guitarist Keith Richards has managed to defy death. Surprising no one, cocky Mick Jagger is locked up in another nasty marital spat.

Master P $56.5

His trademark line is "Uhh." In show biz, the executives say "Wow!" P. made more than any other rapper last year, thanks to some platinum records and his films.

Robin Williams $56

Patch Adams was just what the doctor ordered for the career of this $20-million-per-movie comic. With a domestic gross of $128 million, the film cured Universal Pictures' blues, too.

Celine Dion $55.5

Driven by her single from the *Titanic* soundtrack, Celine owned the airwaves last year. What will all those fans do when she decides to hit the links for a year?

KELLY JORDAN/ GLOBE PHOTOS

Mel Gibson $55

Talk about beating a dead horse. *Payback* may be the Aussie's latest shoot 'em up, but it was last year's *Lethal Weapon 4* that brought home the loot. Gibson's payday? Hollywood's biggest in '98.

Garth Brooks $54

"You have to think Disney when you think Garth," says one of this country boy's executive fans. That may be hyperbole, but Brooks is the biggest country star on the planet.

MITCHELL LEVY/ GLOBE PHOTOS

BRITY

	Tom Hanks	[illegible]	44.0	300	9,754	3	203	12
	Helen Hunt	[illegible]	31.0	299	6,618	9	118	13
	Garth Brooks	[illegible]	54.0	313	8,793	0	100	14
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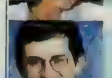	Greg Daniels	[illegible]	53.0	1	227	0	1	62
	Peyton Manning	[illegible]	11.6	97	12,496	0	24	63
	Cindy Crawford	[illegible]	8.0	1,008	3,486	3	71	64
	Bonnie/Terry Turner	[illegible]	45.0	2	420	0	1	65
	Jerry Bruckheimer	[illegible]	22.0	56	1,203	0	10	66
	John Wells	[illegible]	35.0	6	2,085	0	2	67
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	David Robinson	[illegible]	12.9	56	3,342	0	35	71
	Ronaldo	[illegible]	10.0	1,144	8,724	0	8	72
	Albert Belle	[illegible]	10.3	109	9,941	0	25	73
	Pedro Martinez	[illegible]	10.7	81	9,472	0	20	74

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More Service and Support
The extraordinary NetJets infrastructure includes the most advanced management software system in the aviation industry. As a NetJets owner, you'll experience the most personalized transportation service in the world. Last year, we flew over 100,000 trips for our NetJets owners to over 90 countries. You'll enjoy superior management of every aspect of your aircraft with totally predictable costs and no surprises — all at a fraction of the cost of full aircraft ownership.

The NetJets Program Worldwide
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Show me the zeros

Show business is a curious industry. While entertainment behemoths, the patrons of pop culture's commercial arts, struggle to sustain profit margins, their product, the celebrity, runs off with the spoils.

Consider: Operating profits (net before depreciation, interest and taxes) for movie and TV studios have fallen from 11% of revenue in 1990 to 9% in 1997, according to investment bank Veronis, Suhler & Associates. The top actor's salary in that time just about doubled, to $20 million.

The record business is grappling with an uncertain future, but its stars still get paid top dollar. Network television is falling off a cliff, yet Jerry Seinfeld, Paul Reiser, Helen Hunt, Tim Allen and even Bryant Gumbel—pull in seven-figure salaries for shows, proven or unproven.

Long-term growth? Nah, this is a hit-driven business. Luck is no small part of it.

Through an obsession with tabloid gossip sheets and television-fed reality, the world is now consuming itself as entertainment, writes Neal Gabler in his recently published book, *Life the Movie*. And the trend is toward an ever-expanding clutter: glossy magazines, floating resorts, flickering distractions on TV and computer monitors, fanciful movie houses and sports arenas approaching the size of the Taj Mahal.

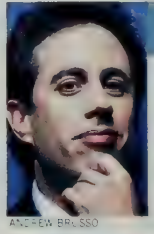
"Why would you want to work for a living if you could just joke around?" chuckles last year's big winner, Jerry Seinfeld. "Being a celebrity expands your commercial possibilities."

Individuals get rich, companies get strapped. That's the law, and the guys cutting the checks keep adding more zeros. Rupert Murdoch calls it "partnership." NBC's Donald Ohlmeyer labels it scorpions in a jar. Sumner Redstone calls it just plain necessity. No matter how you look at it, the lunatics are running the asylum.

–Robert La Franco and Ben Pappas

"I'm not the best rapper in the business, but I am the best entertainer. I'll meet anybody on a stage and I will get down."

–Sean (Puffy) Combs



ANDREW BRUSSO

Jerry Seinfeld

Once the hardest-wo man on television, Je new passions: surfin billiards and enjoyin couch. Heck, with $3 lion-plus booked, he do what he wants.

Larry David $242

He's not happy about being on our list, and his cocreator, Jerry Seinfeld, says our numbers are high. But when you own a chunk of a sitcom that sells for nearly $2 billion, it's hard to hide.

Steven Spielber

After decades of virtu ship of his films at U Studios, Hollywood's tor launched DreamW with his powerful fre *Saving Private Ryan*, is taking shape.

Oprah Winfrey $125

Having a top daytime show in television offers a lot of leverage to cross-promote her books, movies and an interactive TV network. And she used to think $230,000 was good money.

James Cameron $115

He sure put big smiles on the faces of Rupert Murdoch and Sumner Redstone. His *Titanic* generated an astounding $1.8 billion in worldwide box office receipts for the moguls.

LISA ROSE/GLOBE PHOTOS

Tim Allen

His handyman schti was a lifesaver for a ABC, but now the sh looks shopworn. No matter: Tim's locked syndication profits.

Yo quiero residuals

You wouldn't recognize Carlos Alazraqui at the checkout line, but you probably know his voice: It's the bark behind Taco Bell's talking Chihuahua, the pooch that delivers the "Yo quiero Taco Bell" punch line. The ads are so popular that the Mexican fast-food chain made nearly two dozen of them last year. Alazraqui's five-year contract pays him more than $100,000 a year, but the 36-year-old actor has loftier goals—using his newfound celebrity to land on-screen roles: "I don't mind being known as the Taco Bell dog guy, but that's not all I want to do."

Alazraqui had better be content with his doggie dinero. At best, high-profile voice-over work seems to lead to, well, more voice-over work.

Elwood Edwards, the source of America Online's chipper "You've got mail," is now a star among his neighbors in Orrville, Ohio (pop. 7,955). The local fame has given the 49-year-old voice-over veteran the chance to do more local radio and TV ads.

Lorraine Nelson would settle for that. Nelson, 44, has provided the helpful voice—"invalid entry"—on Lucent Technologies' Audix voice mail systems since 1986. Lucent estimates that Americans hear her voice 100 million times a day. But Nelson isn't paid based on exposure. Instead, she gets a little more than scale ($333 for the first hour of taping, $97.50 for each successive half-hour) and doesn't get residuals. "I'm not getting rich on this," Nelson says. "I'm getting by."

Then there's J. Russell Leatherman, who generates the bombastic "Mr. MovieFone" voice for the listing and ticketing service. Leatherman's over-the-top delivery has generated enough cultural currency to merit a *Seinfeld* subplot and occasional cameos reading Top 10 lists on *David Letterman*. Leatherman's hourly rate? Zilch. But Leatherman is getting by. As president of MovieFone, Leatherman takes home a six-figure salary. And the deal MovieFone struck last month to sell out to America Online values his 3.1% stake in the company between $4.6 million and $6.2 million.

–Peter Kafka

Michael Crichton $65

Crichton's been making eight-figure sums from his books and seven-figure sums from movie deals for years. His most recent coup: a 5% cut of the television drama *E.R.*

Harrison Ford $58

It's a good thing actors age more gracefully than most actresses: Ford still wins kudos for his sex appeal. Sure it's unfair, but box office receipts don't lie.

MITCH GERBER/ CORBIS

Rolling Stones $57

Will this spectacle ever stop rolling? Surprising everyone, guitarist Keith Richards has managed to defy death. Surprising no one, cocky Mick Jagger is locked up in another nasty marital spat.

Master P $56.5

His trademark line is "Uhh." In show biz, the executives say "Wow!" P. made more than any other rapper last year, thanks to some platinum records and his films.

Robin Williams $56

Patch Adams was just what the doctor ordered for the career of this $20-million-per-movie comic. With a domestic gross of $128 million, the film cured Universal Pictures' blues, too.

Celine Dion $55.5

Driven by her single from the *Titanic* soundtrack, Celine owned the airwaves last year. What will all those fans do when she decides to hit the links for a year?

PHOTOS

Mel Gibson $55

Talk about beating a dead horse. *Payback* may be the Aussie's latest shoot 'em up, but it was last year's *Lethal Weapon 4* that brought home the loot. Gibson's payday? Hollywood's biggest in '98.

Garth Brooks $54

"You have to think Disney when you think Garth," says one of this country boy's executive fans. That may be hyperbole, but Brooks is the biggest country star on the planet.

MITCHELL LEVY/ GLOBE PHOTOS

JOHANNA GOODMAN

Digital hero?

We've got sci-fi creative genius George Lucas in with other celebrity filmmakers. But he's a cross case, almost more a business owner than the o of a famous name. His talents are as much like t of Bill Gates as those of Steven Spielberg and James Camer

Three years ago Lucas asked Sony Corp. to develop a new of digital cameras and projectors for the filming and exhibitic the *Star Wars* trilogy's last chapter, to be released after 2(Independent filmmakers have used digital cameras for y (they're easier to operate and cut down on editing costs). But Hollywood never embraced them, because the picture quality was poorer than that of celluloid film.

Sony hopes to improve picture quality with its latest digital technology. Lucas will lease the new cameras, likely for less than he pays for traditional equipment.

Digital technology could hypothetically allow him to beam movies via satellite from his Skywalker Ranch in Northern California directly to theaters. This would give Lucas more control over distribution. Only theaters equipped with his THX system or with similar picture and sound quality will get his movie. By reducing distribution costs, he would get more of the movie's gross receipts.

Leading the digital charge is nothing new for Lucas. His Industrial Light & Magic was the first to create a complete scene using digital special effects in 1982. Since then ILM has been at the forefront of the special effects business with films like *Jurassic Park* and *Forrest Gump*.

If Lucas' latest gamble pays off, you can bet Steven Spielberg won't be far behind.

–Carleen Hawn

ANDREW BR

Puffy Combs

"I don't fear no man," Combs. "I got the stre of Sinatra." He'll have chance to prove it soor with a new album.

LISA

Greg Daniels

Daniels is making the cocreator of *King of th* He's also married to th head of programming WB network. No nepoti though: Daniels works networks.

TOM RODRIGUEZ/ BF PHOTOS

Mike Judge $53

The edgy mind of Mike keeps churning out the popular cartoons for Fox. First *Beavis & Butthead* and then *King of the Hill*. Who ever said there was no artistry to pop culture?

M

Chris Carter

Now that we've seen h aliens, some wonder w the *X-Files*' creepy stor line goes next. We knov where Chris is going: straight to the bank.

WALTER W

David Copperfield $49.5

Copperfield streamlined his tour operation and now runs one of the tightest ships in show business. The main markets for his schmaltzy brand of wizardry? People who want to believe in magic.

DEAN

Spice Girls $49

Ginger Spice left the band for a career in politics. Now the girlie group's future appears headed the way of New Kids on the Block and The Monkees. But, hey, Kiss came back.

MITCH GERBER/ CORBIS

Paul Reiser

Judging by its slip in tl ings, his *Mad About Yo* sitcom is no longer fun the execs at NBC. Gooc he already has a piece show's syndication rev

/ WHITE/ OUTLINE

Eddie Murphy $47.5

Eddie's branched into TV—and social commentary—with his new claymation show, *The PJs*, on Fox. But Murphy continues to make it on the big screen with hits like *Dr. Dolittle*.

John Travolta $47

Rumors abound that Scientologist Travolta wants to produce a $70 million version of L. Ron Hubbard's *Battlefield Earth*. He claims the film is "like *Star Wars*, only better."

ANDREA RENAULT/ GLOBE PHOTOS

Drew Carey

Despite competition fr UPN's hot new cartoon of *Dilbert*, Drew Carey television viewers' favo goofy, bespectacled off drone in short sleeves really bad haircut.

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LYNN M. STONE

Tom Hanks **$44**

His last five films pulled in miles of greenbacks—more than $658 million—so it's no surprise that Hanks will star in *The Green Mile*, an upcoming film based on a series by Stephen King.

ARMEN [illegible] GALLO PHOTOS LTD

STEVE [illegible] OUTLINE

His Infront Productio once oversaw the di of *Mad About You*, b audiences no longer about the show. Jacc on to *Two Guys, A Gi Pizza Place.*

JEFF [illegible] OUTLINE

Kevin Costner **$41**

Somehow he still does it, even though audiences let out groans of disgust when his mug popped up in trailers for the current *Message in a Bottle.* At least Hollywood still loves you.

REISIG & TAYLOR, OUTLINE

Seinfeld/Mad About You Crew **$40.5**

No wonder NBC relies so heavily on these guys. *Friends, Veronica's Closet* and *Jesse*—all of them on one night on one network. It's a good thing some suppliers still talk to NBC management.

HENRY [illegible] GLOBE PHOTOS

Stephen King **$40**

The horror maestro from Bangor, Maine is still the king of his genre. ABC used his TV miniseries, *Storm of the Century,* to scare up ratings during sweeps.

LISA ROSE/ GLOBE PHOTOS

Brad Pitt **$40**

The $90 million *Meet Joe Black* was pronounced dead-on-arrival at the box office. Mr. Pitt better hope the soon-to-be released flick, *The Fight Club*, kicks new life into his career.

COURTESY OF NICKELODEON

The Rugrat pack

"You dumb babies!" With that epithet Angelica Pickles helped make Nickelodeon's *Rugrats* the nation's number one TV show among kids. Never mind that Angelica is just an animated toddler. *Rugrats* now attracts some 18 million viewers every week, making it the cable channel's most popular show.

As Nickelodeon knows, entertaining kids is anything but dumb. The Viacom unit spun *Rugrats* into a full-length feature film last year. A mere $20 million to make, the movie grossed almost $100 million. Throw in international and domestic sales of home videos, advertising, licensing deals and a live U.S. tour, and *Rugrats* generated over $1 billion in revenue last year alone.

Nickelodeon also scored big with *Blue's Clues*, a show featuring a floppy-eared blue puppy and its master. Last June FAO Schwarz kicked off a merchandising blitz for Blue that was the biggest product launch in the store's 136-year-history. The event attracted 7,000 shoppers.

Can Blue and Angelica maintain their hold on fans? Children just grow up too fast—and are faddish in their tastes. With more competition for kids' attention, the reign of kiddie entertainers at the top is becoming ever shorter. Just ask Barney, whose number one position at PBS was usurped by a bespectacled aardvark named Arthur.

Two shows that will likely pick up any slack: *Teletubbies*, which targets the under-3-year-old crowd (and is currently getting a free promotional push from Jerry Falwell) and *Little Bear*, based on the books illustrated by Maurice Sendak of *Where The Wild Things Are* fame.

–Colleen Mastony

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Celebricities

In the *Titanic* memorial graveyard in Fairview Cemetery in Halifax, Nova Scotia, there is a J. Dawson headstone. Thanks to James Cameron's blockbuster *Titanic*, Dawson received a few more visitors this past year.

When a movie hits, so does its location. According to Roger Riley, an Ithaca College associate professor who specializes in film tourism, *The Bridges of Madison County* did just that for Winterset, Iowa. Tourist visits to that locale off the beaten track quintupled in 1995, the year of the film's release.

So what if the tourists go away with an empty roll of film? After *Forrest Gump*'s release, visitors besieged the Savannah, Ga. Chamber of Commerce when they could not find Gump's park bench. Even so, the movie appears to have temporarily given a 7% boost to tourism.

But—as in real life—celebrity is not forever. In Madison County, there are still more visitors than before the movie, but the numbers are dropping. Says Adam Cermak, executive director of the Chamber of Commerce: "A sequel might help us."

–Doug Donovan

ARMANDO GALLO/RETNA LTD

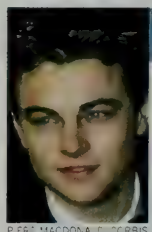
Nicolas Cage

Independent film fans never forgive him for on roles in movies like *Air*. Now he draws a s bigger than most indi budgets: $15 million.

GREG [illegible]/TIME

Bruce Helford $38

You won't ever see this guy on camera during the *Drew Carey Show* on ABC, but nobody creates a hit sitcom in Hollywood without walking off with a truckload of money.



ROBERT MACDONALD/CORBIS

Leonardo DiCapri

Environmental protest stinging jellyfish have ensured that life is an but a beach on the Th Leo's latest. At least h count his $20 million on a private yacht.

LISA ROSE/GLOBE PHOTOS

John Wells $35

He did great with *E.R.*, but his short-lived *Trinity* quickly went on life support and was one of the dark spots on NBC's dim schedule this year. Hey, you can't win them all.

ARMANDO GALLO/RETNA LTD

Will Smith $34

With *Enemy of the State*, the Fresh Prince proved he can bring in bucks without evil aliens or monster effects. The political thriller has grossed $110 million domestically.

ARMANDO GALLO/RETNA LTD

Jim Carrey

He's in a quiet period don't let that worry yo been filming the upco Andy Kaufman bio, *Ma The Moon*. If it's half a as Kaufman was, he w quiet for long.

MEGAN [illegible]/RETNA LTD

Metallica $32

Having blown away eardrums with their own unique brand of monster rock for more than a decade, Metallica released a compilation of cover songs last year. Surprise. It sold a few million cop

[illegible]/CORBIS PHOTOS

Helen Hunt $31

She won't be taking home an Oscar this year, but last year's award won her a hefty $22 million payday for her role on *Mad About You*. Seek out Hunt in more movies.

DAVID BARRY/OUTLINE

Dave Matthews Band

Out of the college circ the Southeast, this go group of musicians us own merchandising op and a hefty cut of its $ lion U.S. tour to nab th number 40 spot.

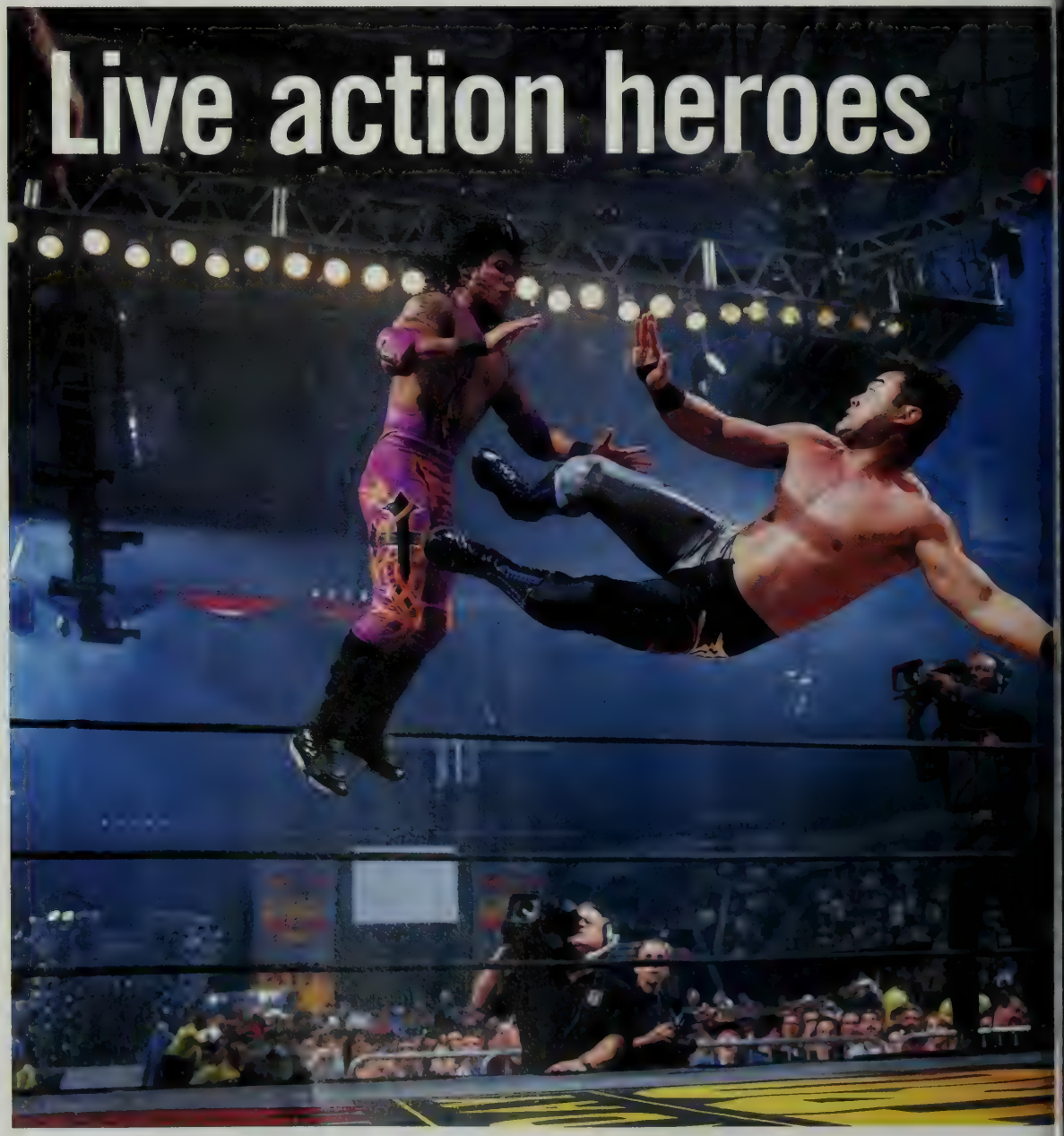
CANALI

When it comes to paychecks, muscle-bound pro wrestlers have no leverage

By Peter Kafka

STEVE WILLIAMS is six-foot-two, 252 pounds, has one mean-looking, goateed bowling ball head. The 34-year-old professional wrestler p forms as "Stone Cold Steve Austin," a beer-g zling hell-raiser. As the main draw for Ti Sports' World Wrestling Federation, Williams made m than $5 million last year and was one of the hottest s in entertainment.

But for all his might, he has roughly the same cont over his career as Homer Simpson. Titan contr William's fate—whom he fights, whether he wins—a it's Titan owner Vince McMahon who arbitrarily det



nes his weekly bonus. Williams says the one Cold persona that sold 12 million shirts last year is an extension of his own rsonality. Yet Titan owns the character's demarks.

It's the very antithesis of what you see in most any other entertainment venue, where e performer owns the franchise value of ebritydom. "This business right now is a lot e Hollywood in the 1930s and 1940s, when e studios had all the power," says Al Snow, oft-spoken wrestler for Titan whose gim- ck involves toting around a mannequin's ered head. "But I think you could see it olve the same way, where the stars will have re influence."

Someday, maybe. A longtime denizen of turday morning television, wrestling now dominates ble-television ratings and rules the pay-per-view TV rket. Titan and its rival, Turner Broadcasting's World hampionship Wrestling, each appear to have had rev- ues of more than $200 million last year. The per- rmers don't get very much of that venue.

Wrestlers sign on as independent ntractors to contracts of three to e years. The promoters develop e characters the wrestlers portray, ript the story lines and determine posure. This allows Titan and rner to cook up stars instanta- ously: both Williams and Turner r Bill Goldberg rose from bit ayers to top-of-the-card status in a atter of months. When the pro- oters decide their acts are stale, the rs find themselves wrestling at the beginning shows rather than at the climax, or off the shows ogether.

Titan and Turner can license the performer's likeness- at will. Want to put Goldberg on a lunchbox? You need proval from Turner.

A handful of wrestlers, like Terry (Holly- ood Hogan) Bollea, break the million- llar-a-year mark, but most of the 150 restlers under contract to Turner or Titan t a base salary of $80,000 to $200,000. he lucky ones receive up to one third of the yalties their characters generate from mer- handise. Titan wrestlers get a fluctuating eekly bonus.

The performers confront what economists ll a duopsony—Turner and Titan are the nly buyers. Both shell out just $30 million— 5% of revenue—for their talent pool. Com- re that with the 48% of revenues that NBA wners pay their players or the $20 million heck that Jim Carrey earned for the $60 mil- on flop *The Cable Guy*.

Goldberg, who last year went from anony-

SCOTT CUNNINGHAM

World T shirt champ Steve Williams

mous ex-NFL lineman to Turner's brightest star, has a base salary of less than $1 million. He can console himself that Turner is an improvement over wrestling's ramshackle minor leagues, where aspiring stars get $25 a night to fight in high school gyms or National Guard Armories.

And it's better than pro wrestling's old days, when contracts consisted of handshakes and dubious promises to share in the gate with promoters. "We worked out of our shirt pockets," says Ken Patera, who wrestled from 1972 to 1988, often at the top of the card. At his peak, Patera would gross $140,000 a year and net $42,000 after travel, medical and legal expenses.

The average wrestler can fight more than 180 times a year, and the outings take a physical toll. The matches may be put-ons, but these are still very large men colliding into each other. Guys routinely perform with broken ribs or dislocated thumbs. A wrestler who's done his job well ends the night feeling as if he's played a full-contact football game.

"You're not totally comfortable with it," says wrestler Snow, "but you accept certain givens when you get into this business."

"I'm a good candidate for a knee replacement," says Williams, who has wrestled for nine years. He now saves certain crowd-pleasing, body-abusing moves—absorbing a pile driver, leaping off the top rope—for showcase events. But a certain amount of pain comes with the territory: Snow is wrestling with a fractured right arm.

> "This business is a lot like Hollywood in the 30s and 40s, when the studios had all the power"
>
> –Al Snow

Thick skin isn't the only requirement. Wrestlers also need to be great showmen. "Give a good wrestler a microphone, push him out the door, ask him for ten minutes [of ranting and crowd-stirring] and you'll get ten great minutes," says Michael Braverman, Goldberg's Los Angeles-based manager. "Who else can do that?"

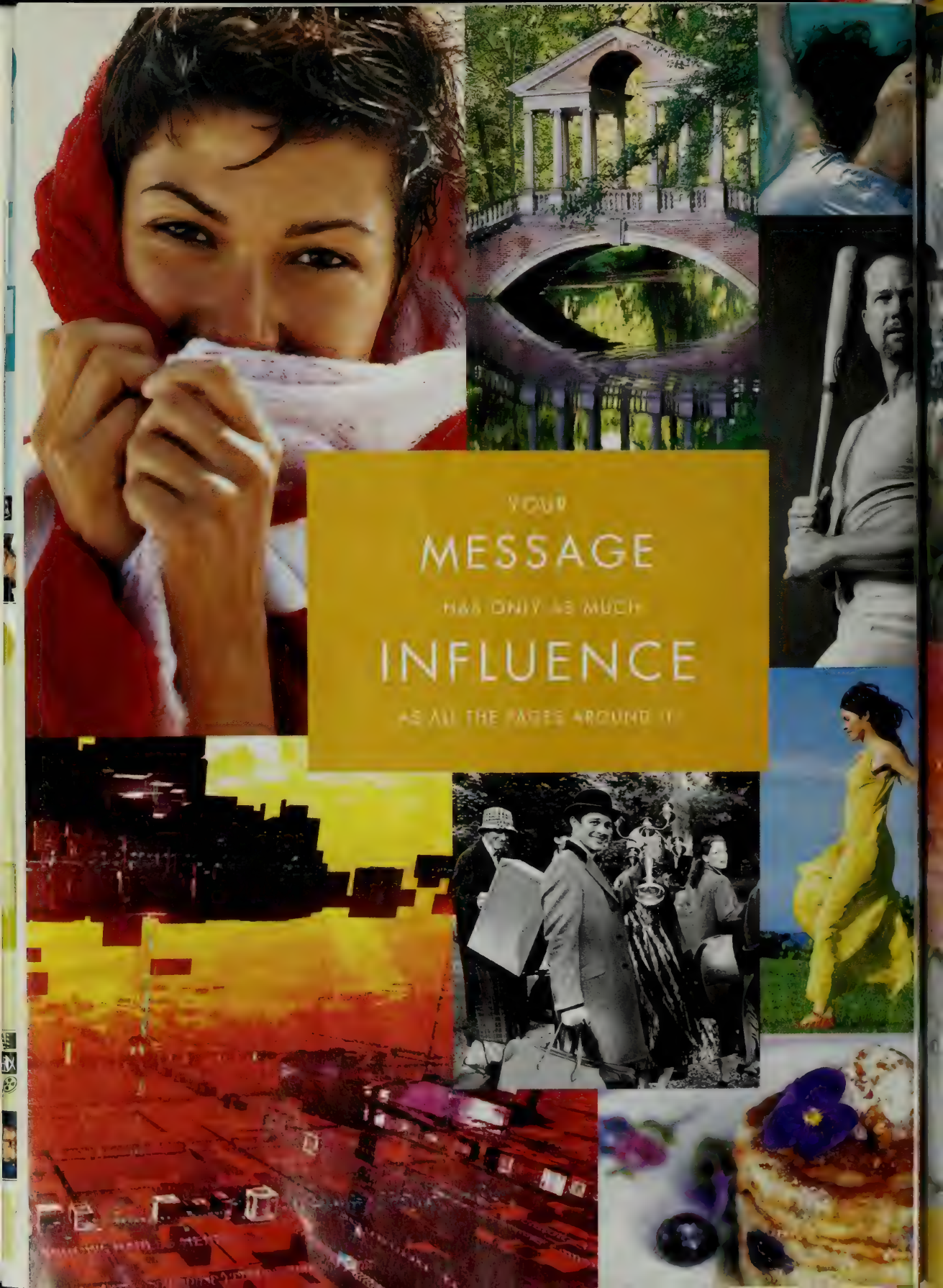
Resourceful wrestlers manage to find ways to increase their value. Some cut low-level, car dealership-type deals on their own. Williams changes his T shirt styles and catch-phrases every few months in order to goose merchandise sales. But most wrestlers have a good sense of their place in the economic food chain.

In the meantime some wrestlers are already trying to parlay their fame into acting roles that don't involve tights. Williams appeared last month in CBS' *Nash Bridges*, and Goldberg plays a villain opposite Jean-Claude Van Damme in the film *Universal Soldier II*.

And Goldberg has a good chance at a second film. He's auditioning for a role in a made-for-TV movie: the life story of Minnesota Governor Jesse (The Body) Ventura. ■

NFL washout-turned-hero Bill Goldberg

SCOTT CUNNINGHAM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The real money players

Last year wasn't a pretty one for the business of sports. As athletic shoe sales slumped, some of the sporting world's top names found themselves losing big endorsement deals. Boxing's top pay-per-view draw was sidelined for the entire year after biting off an opponent's ear. And the NBA lost more than a third of its season to a bitterly fought lockout.

The lockout cut heavily into basketball players' pay. Shaquille O'Neal's contract stipulates that he receive his entire season's salary in one lump sum at the start of the season. Because the season didn't start until February, Shaq just got his first paycheck since May 1997.

Boxing also had an off year, and not just because of Mike Tyson's involuntary sabbatical from the ring. Injuries to top names like Oscar De La Hoya and inactivity for big-draw George Foreman and titleholders like Evander Holyfield left only three pugilists in the big money.

So is this the end of the gravy train? Not quite. With the departure from the court of Michael Jordan, who had racked up a grand total of $370 million since 1990, and a continued slump in the sports marketing business, endorsement figures are likely to slide in 1999.

But on the field salaries are going through the roof. Last year the 40 highest-paid athletes pulled in $360 million in salary and winnings (to go along with $281 million in endorsements), and that number is likely to get even larger in 1999. There have been big new deals for basketball stars like Scottie Pippen and Kevin Garnett and a stunning raft of baseball mega-contracts in the off-season, for pitchers Randy Johnson and Kevin Brown and sluggers Mike Piazza and Bernie Williams. In short, pro ball players and their lawyers and agents are definitely not heading to the poorhouse.

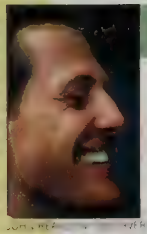
–Peter Spiegel and Leigh Gallagher

"Every athlete is a role model, whether they want to be or not. You have to recognize that position."

–Dale Earnhardt

Michael Jordan $69

Jordan leaves basketball with six championship rings and the most impressive endorsement lineup in the history of sport. Counting options in companies like MCI WorldCom, Jordan's take likely topped $100 million last year.



Michael Schumacher $38

For the second year in a row the German speedster just missed winning his third Formula I title last year, but Ferrari inked Schumacher to a new four-year deal, worth about $140 million, anyway.

Sergei Fedorov $29.8

Fedorov scored big last year thanks to hockey's free agency rules. The Carolina Hurricanes offered him a six-year, $38 million contract that included up to $26 million in bonuses. In order to keep him, Detroit had to match the contract. It did.

Tiger Woods $26.8

Below-par sales of his Nike shoe and apparel line last year prompted a redesign. But new deals with General Mills and EA Sports look prescient: Tiger's play is heating up this year.

Dale Earnhardt $24.1

With Nascar's surge in popularity the usually endorsement-shy Earnhardt stocked up with more than a half-dozen new deals this year, including Coke, Burger King, Nabisco, Hasbro and Chevrolet.

Grant Hill $

Hill's deal with Fila pays hi more than $10 million a ye and heads up a long list of endorsements that include Sprite, Kellogg, GMC and McDonald's. The Duke grad closes all deals in person.

Golden gloves

Tying your product to a professional boxer hasn't been the smartest move in recent years. Kodak and Pepsi were mortified when Mike Tyson was accused of beating his wife and later jailed for rape. Fila was paying heavyweight champ Riddick Bowe $500,000 a year before he started getting into fights at press conferences—wearing Fila gear.

So why are companies flocking to young pugilist Oscar De La Hoya? "He's got great charisma," says MCI WorldCom's Patricia Proferes, who chose De La Hoya to pitch the company's 10-10-321 service. "He just happens to be a boxer."

Boxing's new Golden Boy is blessed with movie star looks and a glib tongue—during a half-hour interview he expounded at length on marketing strategies and the intricacies of the pay-per-view industry. He also has crossover appeal. Not only does he speak perfect English and Spanish, he also has a huge female following.

De La Hoya's career has been meticulously charted by two men: promoter Robert Arum and Time Warner Sports President Seth Abraham. Arum began putting De La Hoya on undercards of his biggest fights, where the young welterweight caught the eye of Abraham, who oversees HBO Sports and its pay-per-view arm TVKO. "Prizefighters often are a rough, surly group of men," says Abraham. "They use boxing to release rage, to escape their circumstances. Oscar doesn't have that rage. He's enjoyable to be with." Abraham signed De La Hoya to a long-term deal that can pay him $10 million per fight.

Last year the boxer signed on with sports agent Leonard Armado, who handles Shaquille O'Neal. Armado doesn't want De La Hoya spread too thin. Last year he signed deals with Levi's, MCI WorldCom and Colgate-Palmolive. This year he added McDonald's and Puma to his portfolio.

But like most modern day celebrities, De La Hoya longs to branch out: "I want to take some time off and do more endorsements and movies," he says. "Little roles in bigger motion pictures." It could happen.

–Peter Spiegel

Oscar De La Hoya $18.5

Injuries kept him out of the ring for several months, but boxing's Golden Boy lived up to his nickname by bagging the biggest purse of 1998 for his September rematch against Julio Cesar Chavez.

Patrick Ewing $18.3

The NBA lockout left many of his colleagues idle, but the Knick center was quite busy as head of the NBA Players' Association. His new four-year contract included a $10 million signing bonus.

Arnold Palmer $18.1

Palmer's impressive portfolio of endorsements includes Pennzoil, Rayovac, Rolex, Cadillac and Office Depot. To commemorate his upcoming 70th birthday in September, Arnie penned an autobiography.

Gary Sheffield $17.2

Sheffield bagged a six-year, $61 million contract with the Florida Marlins, then got another $5 million when the Marlins traded him to the Dodgers. He's now our list's highest-paid baseball player.

Andre Agassi $15.8

In 1998 Agassi bounced back from a wrist injury and put together a solid year of tennis. Off the court, his Pepsi deal ended, but a huge deal with Nike anchors a portfolio that includes Canon and Head.

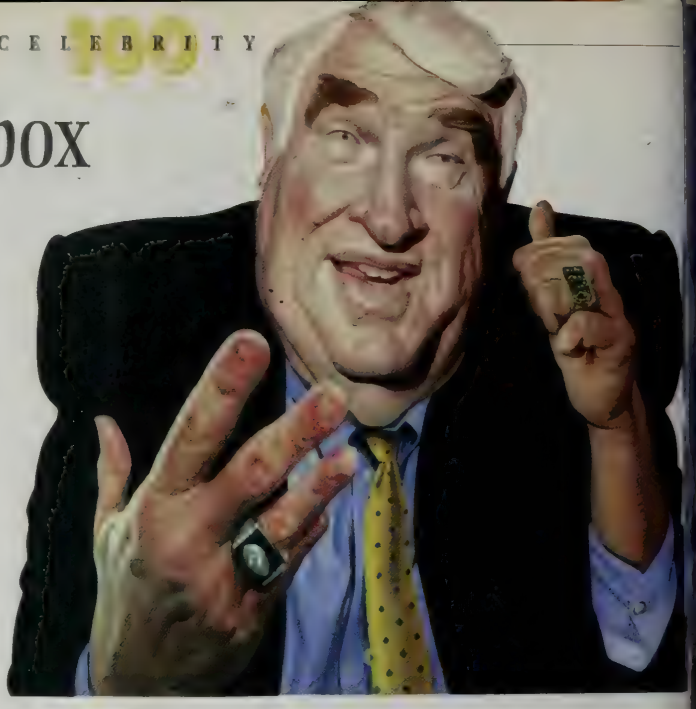
GEORGE LANGE/ OUTLINE

Dennis Rodman $15.3

His outrageous behavior scares away most employers, but Rodman finds new teams and revenue streams. Pro wrestling brought him more than $1 million. That's more than his new Lakers contract will pay him.

MICHAEL O'NEILL/ OUTLINE

Jock in the box



There was no escaping Keith Olbermann at Superbowl weekend in Miami. Fox Sports Net's hyperactive marketers plastered their new anchorman's mug on billboards, buses, ice cream trucks—even on the bodies of fans in the form of temporary tattoos.

Fox executives believe Olbermann, a former star at rival ESPN, can generate the kind of attention their fledgling network needs. "There are people who will tune in just to see Keith," says Arthur Smith, Fox Sports Net's executive vice president of programming. He's put Fox's money where his mouth is: Smith paid MSNBC $1 million to get Olbermann out of the remaining two years of his contract last fall. Olbermann now makes $2.5 million a year, a 200% raise. And Fox is spending another $5 million to market its fast-talking quipster.

Celebrity sportscasters date back at least as far as Dizzy Dean's 1940s baseball broadcasts. Howard Cosell was famous enough to earn his own (short-lived) variety show. But the r bers are bigger now. Fox pays footb analyst John Madden $7 million a y and encourages his commercial endorsements—six and counting, worth an estimated $5 million annu ly. "John is a dominating personalit says Madden's agent Barry Frank. "He can get people to stay with a b game longer than anyone."

It's even possible to create a strong enough personality to survi sex scandal. Banished from NBC a its premier play-by-play and yes-ma for pro basketball games after plea ing guilty to misdemeanor assault charges, Marv Albert recently retur as host of a nightly New York-area cable sports show. Ratings are up 25%. And this month he'll start call NBA games again for Turner Sports The scandal has taken a bite out o his salary, but don't shed too many tears: He'll still take home more th $1 million this year.

–Peter Ka

Wayne Gretzky **$14.6**

The Great One may no longer be the best player on skates, but he's by far the most popular, pitching fries for McDonald's in the U.S., Canada and Sweden, and a signature line of casual apparel for Canadian retailer Hudson's Bay.

Jeff Gordon **$14.5**

Gordon is now one of the most sought-after endorsers in sports. Pepsi featured him in a Super Bowl ad last year. Expect new deals with a telecommunications firm and a financial services outfit.

Cal Ripken Jr. **$14.1**

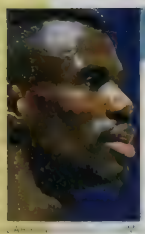
Baseball's Iron Man took himself out of the lineup, ending his record of consecutive games played at 2,632. The streak helped make Ripken the top endorsement man in baseball—deals include Chevrolet, Nabisco and Century 21.

Greg Norman **$13.6**

The Great White Shark stayed off the course for much of last year due to a shoulder injury. His prize money suffered, but his apparel line with Reebok was a winner, once again grossing over $100 million.

Brett Favre **$13.1**

The Green Bay Packers quarterback is now one of the top earners in football, endorsing Nike, Wheaties and Rawlings. Expanded into acting with a cameo role in the box office hit *There's Something About Mary.*



David Robinson **$12.9**

Likable and articulate, the Admiral doesn't pursue long-term endorsement deals. His one-off commitments include Edge, Castrol and Oreos—a deal he signed because he got to appear in a commercial with his kids.

Ken Griffey Jr. **$12.7**

While Mark McGwire and Sammy Sosa hogged the limelight, Griffey quietly racked up his second straight 50-plus home-run season. That helped add Dunlop Tires to an endorsement portfolio that includes Nike, Nintendo and Duracell.

Gary Payton

A shoe from Nike called "S Glove" (named for his defe prowess) and $2 million in mance bonuses assisted t tle point guard's inclusion list. Payton also pitches fo Touch Cellular and AT&T.

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Shawn Kemp $12.1

After seven frustrating and divisive years in Seattle, the Sonics dealt the mercurial All Star forward to Cleveland. The Cavs promptly reworked Kemp's contract so that it will pay him $107 million over 7 years.

DARREN ... ARCHIVE PHOTO

Mike Piazza $12

One of the best-hitting catchers in baseball, Piazza was traded to the Mets, which later signed him for $91 million over seven years. Piazza remains popular in Japan, where he pitches underwear and construction equipment.

... ALLSPORT

Peyton Manning $11.6

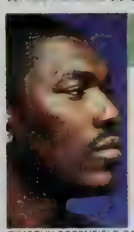
The Colts made Manning the first pick in football's 1998 draft and promptly rewarded the quarterback with an $11.6 million signing bonus and a six-year contract that could reach $48 million.

JON FERREY/ PINNACLE/ ALLSPORT

Lennox Lewis $11.4

Two fights against relative no-names was enough to put Lewis on our list. Evander Holyfield, whose only fight last year paid him about $5 million, fell well short. The two are scheduled to spar this month.

... OUTLINE



Hakeem Olajuwon $11

Sales of his Spalding basketball shoe have worn out, like the rest of the sneaker market, but the soft-spoken Nigerian still has a decent stable of endorsements, including Uncle Ben's rice and AmeriHealth.

TIMOTHY GREENFIELD-SANDERS/ OUTLINE

Jack Nicklaus $10.8

Nicklaus' Golden Bear Golf was delisted by Nasdaq after employees in the company's course construction division falsified records. But the endorsements roll in, including a new deal with Pepsi.

BRIAN SMITH/ OUTLINE

Alonzo Mourning $12.1

The Miami Heat center was an active member of the Players Association during the union's lockout negotiations with the NBA this winter. He's also in the midst of a seven-year, $105 million contract.

BRIAN SMITH/ OUTLINE

Mo Vaughn $11.9

After a yearlong spat with Red Sox management, Vaughn went to California when Disney offered him a six-year, $80 million contract to play for its Anaheim Angels. The deal included a $13 million signing bonus.

BRIAN SMITH/ OUTLINE

Deion Sanders $11.5

Neon Deion maintains an impressive group of endorsements, including Pepsi, Nike, Sega and Visa. He also scored a six-figure advance for his new book, *Power, Money and Sex: How Success Almost Ruined My Life.*

GEORGE LANGE/ OUTLINE

Roy Jones Jr.

Because there are no stro... contenders in his weight class, Jones gets little pu... ity. His strong contract wi... Time Warner's HBO and T... pay-per-view arms pay hi... big purses anyway.

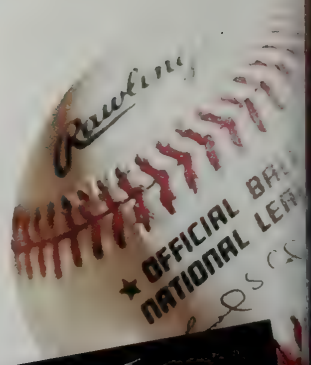
BARRON CLAIBORNE/ OUTLINE

Pete Sampras

Sampras prefers to conc... trate on tennis rather th... endorsement deals, but ... the top player in tennis h... its rewards: His shoe an... racket deals alone bring ... about $6 million.

GEORGE HOLZ/ OUTLINE

Balls of fire



Celebrities weren't the only stars in 1998. Two of last year's biggest head turners were sizzling orbs hurling through space: Mark McGwire's 70th home-run baseball and a well-timed meteor.

McGwire's record-setting sphere went for a stellar $3 million—a 2,400% increase over the price paid in 1998 for the first home-run ball at Yankee Stadium hit by Babe Ruth.

The-earth-is-going-to-be-smashed-by-a-killer-asteroid flicks *Armageddon* and *Deep Impact* got a free promotional push when astronomers reported that a real life-threatening asteroid was heading this way. The real asteroid missed its mark, but the two movies didn't; they grossed $342 million at the box office.

Both the baseball and t... fireball paled i... comparison wit... 1998's most famous object, Viagra, the "pick-n... up" for Bob Dole and a generatio... of despairing men. After making t... pill into a magazine-cover star, Pf... sold 60 million. –Robert G...

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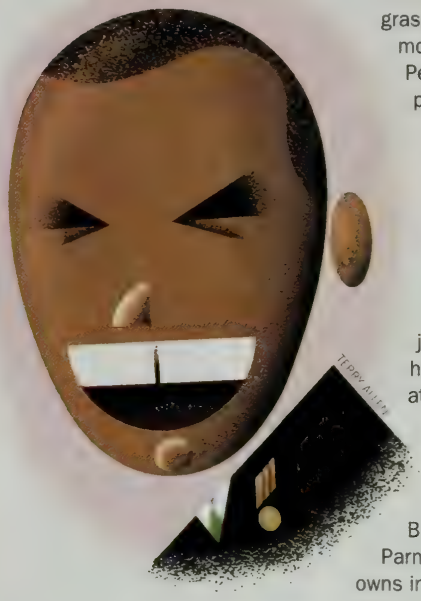

Pitch man

Of the many accolades in sports—championship rings, Most Valuable Player trophies, Hall of Fame inductions—the right to design your own athletic shoe for the world's top sneaker company is pretty special. In 1994 Nike accorded this honor to the 22-year-old soccer star Ronaldo, committing some $15 million to lock up the deal.

Born Ronaldo Luis Nazario de Lima, the footballer staked his claim early, making Brazil's World Cup team at age 17. In 1997 Italian team Inter Milan paid an estimated $14 million signing bonus and $28 million in transfer fees to land him. Known for his speed and creativity on the grass, Ronaldo is making the most of his off-field pursuits. Pelé, the last great soccer phenom, also played for Brazil in the World Cup at age 17, in 1958. But even though Pelé won three World Cups, he reigned in a pre-endorsement world. Ronaldo played poorly in the last game of his second World Cup outing last summer, but just the hint of his promise has been enough to generate millions *(see below)*.

In addition to Nike, the gap-toothed Ronaldo pitches for Italian tire company Pirelli; the Brazilian beer Brahma; and Parmalat milk. R9, the bar he owns in Rio de Janeiro, is named after his jersey number.

The money should keep flowing for years as media titans looking for international properties pile onto soccer. Last year Rupert Murdoch offered $1 billion for England's Manchester United club tea Time Warner, Sony and Disney are said to be sniffing for teams. Satel lite television is beaming the sport into millions of households that never had access to the game before. More exposure means mor eyeballs, which means more endorsement money. Ronaldo—already the most popular man on t World Wide Web—will be first in lin to score.

— Leigh Gallagh

Ronaldo $10

Ronaldo's contract with Inter Milan makes him one of the highest-paid soccer players in the world. But it's the endorsements that pay the bills. Nike alone pays him $1.5 million per year.

Albert Belle $10.3

Belle's $10-million-per-year deal with the White Sox allowed him to walk when he was no longer one of the three highest-paid players in the game. His new deal: five years, $65 million with the Orioles.

Martina Hingis $10.1

Brash and blunt, Hingis recaptured the women's tennis game's number-one ranking and added Ocean Spray and Clairol to her portfolio. Other deals include Yonex, General Motors' Opel, and scalemaker Tanita.

Sammy Sosa $10

Sosa aided his native Dominican Republic in the island's disaster relief effort after Hurricane Georges. Now he's being aided by a few American companies: deals with MasterCard and McDonald's, etc., could top $3 million this year.

Pedro Martinez

The Montreal Expos traded tinez to the Red Sox, where was signed for $75 million six years. Martinez pocketed million in signing bonuses Endorsements include a re deal with Bank of Boston.

Horace Grant

Grant's front-loaded contra the big money was paid ea the contract—eased the p during the lockout. The Orla Magic forward struck a new regional deal with Pepsi to with a smallish Nike one.

Michael Chang

Injuries knocked Chang fro number-two ranking and cu prize money in half. But his deals with Reebok and Prin were supplemented by new for a videogame and for nu tional food in China.

Mark McGwire

McGwire may have erred la year when he rejected comm cial offers during his histor home-run race. Word is that new deals will be smaller th expected for him and Sammy Sosa.

Shaquille O'Neal

Because his contract calls f single lump-sum payment a start of the season, Shaq di get a dime from the Lakers during 1998. Not that he starved. O'Neal still has a b endorsement deal with Peps

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Broadway esthetes hate Frank Wildhorn's music. Audiences love it.

Show *business*

By Eric Schmuckler

There's a song from the Stephen Sondheim musical *Merrily We Roll Along* titled "Franklin Shepard, Inc.," in which a successful songwriter is pilloried by his writing partner for becoming so wrapped up in commerce that he's losing touch with art. This dilemma has never troubled Frank Wildhorn, who is fast becoming Broadway's most successful composer since Andrew Lloyd Webber.

Like Lloyd Webber, Wildhorn has a keen grasp of the financial side. "I enjoy the game," says the burly composer. "It's called show *business*, and I accepted that early on, so I try to have fun with it."

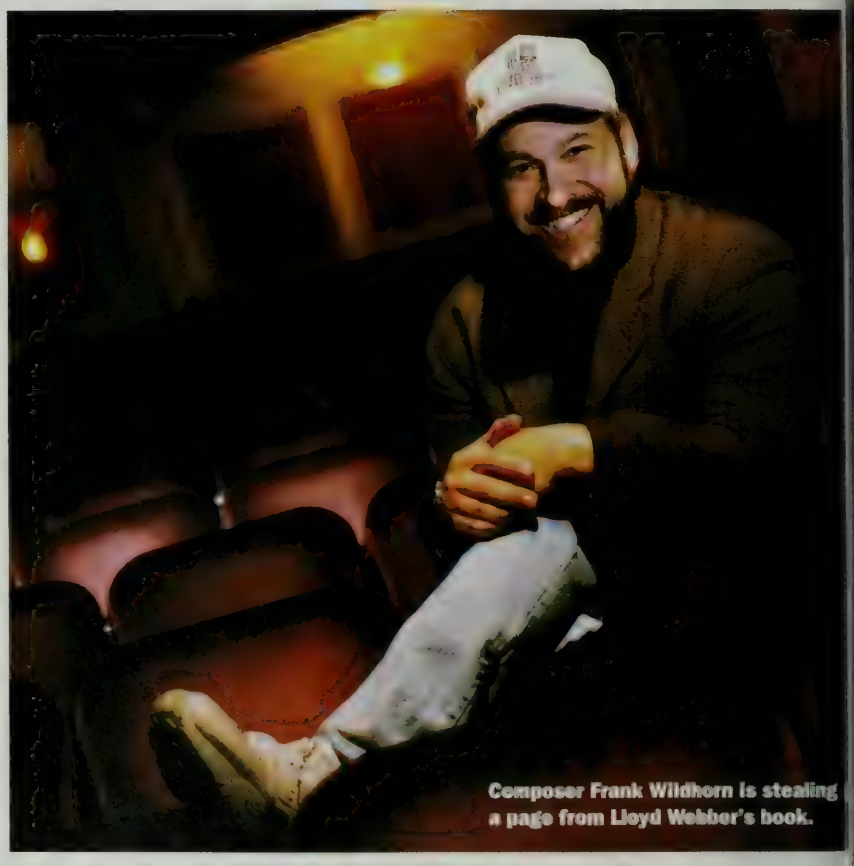
Wildhorn, 40, will soon have three musicals running on Broadway simultaneously, only the second American composer ever to do so; Stephen *(Godspell)* Schwartz was the first. *Jekyll & Hyde*, a "Gothic pop" version of the classic story, has a cult following—some fans have supposedly seen the show 200 times. Last season brought *The Scarlet Pimpernel*, a romantic swashbuckler. He completes the hat trick next month with *The Civil War*, a largely plotless cycle of songs that portray the war through letters, speeches and writings of the period.

Each show is launching a U.S. touring company this year. Abroad, *Jekyll* is playing in Vienna and Bremen, Germany; deals have been struck for Madrid, Australia and Japan. London and Mexico City could be next.

A songwriter who scored middle-of-the-road hits for the likes of Natalie Cole and Kenny Rogers, Wildhorn owes his theater music as much to the Top 40 as to Rodgers & Hammerstein. "Rock and pop became the music of the entire world except the theater, which turned off a whole generation," he says. "I try to be a bridge between the two worlds, and I take a lot of shots for that. One critic actually complained the music for *Jekyll & Hyde* was too commercial."

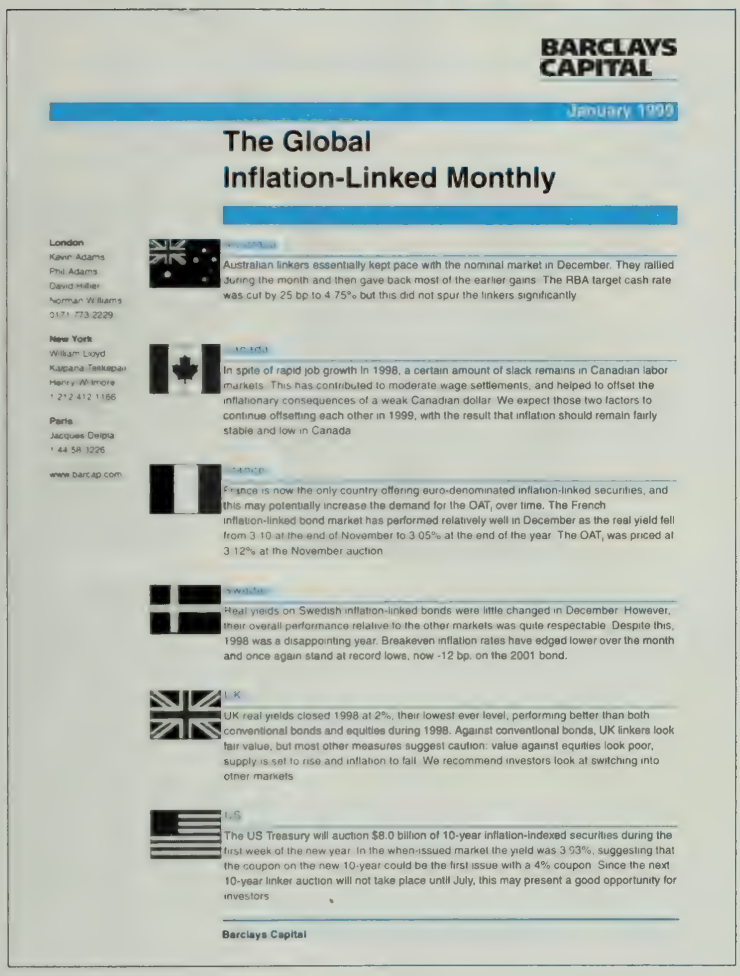
"He's got something the public is buying," says veteran Broadway impresario Alexander H. Cohen. "But I do get the sense that someone sat down and asked, 'What are the potentials for TV and how well will it tour and will it play in Australia and what is the shirt?' " Wildhorn is unabashed: "Wh I'm selling, if I'm selling anything, me. You can't create something a turn your back on it."

No effete theater snob, Wildho grew up in Queens, N.Y. and wa self-taught music prodigy as a teena er. After studying history at the U versity of Southern California, he f into pop songwriting while nursing l theatrical ambitions. Some sideline: H songs have sold 50 million recor including Whitney Houston's recor ing of "Where Do Broken Hea Go?," a hit in 43 countries.



Composer Frank Wildhorn is stealing a page from Lloyd Webber's book.

WORLD-WISE RESEARCH



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January 1999

The Global Inflation-Linked Monthly

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Australia

Australian linkers essentially kept pace with the nominal market in December. They rallied during the month and then gave back most of the earlier gains. The RBA target cash rate was cut by 25 bp to 4.75% but this did not spur the linkers significantly.

Canada

In spite of rapid job growth in 1998, a certain amount of slack remains in Canadian labor markets. This has contributed to moderate wage settlements, and helped to offset the inflationary consequences of a weak Canadian dollar. We expect those two factors to continue offsetting each other in 1999, with the result that inflation should remain fairly stable and low in Canada.

France

France is now the only country offering euro-denominated inflation-linked securities, and this may potentially increase the demand for the OAT_i over time. The French inflation-linked bond market has performed relatively well in December as the real yield fell from 3.10 at the end of November to 3.05% at the end of the year. The OAT_i was priced at 3.12% at the November auction.

Sweden

Real yields on Swedish inflation-linked bonds were little changed in December. However, their overall performance relative to the other markets was quite respectable. Despite this, 1998 was a disappointing year. Breakeven inflation rates have edged lower over the month and once again stand at record lows, now -12 bp. on the 2001 bond.

U.K.

UK real yields closed 1998 at 2%, their lowest ever level, performing better than both conventional bonds and equities during 1998. Against conventional bonds, UK linkers look fair value, but most other measures suggest caution: value against equities look poor, supply is set to rise and inflation to fall. We recommend investors look at switching into other markets.

U.S.

The US Treasury will auction $8.0 billion of 10-year inflation-indexed securities during the first week of the new year. In the when-issued market the yield was 3.93%, suggesting that the coupon on the new 10-year could be the first issue with a 4% coupon. Since the next 10-year linker auction will not take place until July, this may present a good opportunity for investors.

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Wildhorn produces a commercial recording of his scores long before they are staged, to serve both as workshop and calling card for the shows. Without its successful *Romantic Highlights* CD, *Jekyll* would never have made it to Broadway, he insists. Later recordings of the score have moved more than a quarter-million units, quite impressive for a theater disc, according to Val Azzoli, cochairman of the Atlantic Group, which rewarded Wildhorn with his own label, Atlantic Theatre. Azzoli points out that touring musicals pump up record sales: "It's like having a rock band on the road doing eight shows a week."

Broadway hasn't made Wildhorn megawealthy yet—he earns more from his old song copyrights than from his current theater work. Typically, the authors of a show's book, music and lyrics are guaranteed a weekly minimum of about $6,000 altogether and share roughly one-sixth of the weekly profits, if any. Wildhorn gets half of this royalty pool. For *Pimpernel*, which is estimated to be more than $10 million in the red, he receives the minimum, or $150,000 a year. *Jekyll*, which after two years has recouped only half of its $6.2 million capitalization, generates somewhere between a quarter- and a half-million dollars for him annually. "We're not swimming in profits," admits Scott Zeiger, president of Pace Theatrical Group, a producer of *Jekyll* and *Civil War*. "But we're paying a lot of bills and increasing the value of the brand name Frank is building."

The money is starting to get serious, though. Road productions can be very profitable because the houses tend to be bigger. Recordings, licensing and sheet music kick in more revenue. And if he ever lands a Broadway smash, he'll really rake it in. "Theater has the best backside in all of show business," he grins.

Wildhorn's next wave of projects in development includes a big band musical comedy, *Havana;* a take on *Alice in Wonderland*, in collaboration with illusionist David Copperfield; a musical life of Muhammad Ali; another Gothic piece, *Dracula*; and a rock 'n' roll opera version of the sci-fi film classic *Blade Runner*. "I've only got so many to do in my life," he says, "so why not go for it?"

Can We Shop?

By Katherine Bruce

The lives of Joan Rivers and Suzanne Somers have been the stuff of country-western ballads. But they're still working hard, and the women of America love them for it.

Love them so much, in fact, that both have found lucrative shelter in the $3 billion plus world of home shopping. But who's the queen of the couch potatoes?

GREGORY PACE/SYGMA

Joan Rivers

History: Once marked as heir apparent to Johnny Carson's late-night empire, Rivers crashed with her own talk show on Fox; soon after, her husband committed suicide. She's come back with a fashion talk show on E!, an autobiography, and a jewelry business that gets her on QVC six times a year.

Product Line: The Joan Rivers Classics Collection, costume jewelry heavy on faux Fabergé. Average price: $40.

Bestseller: The Bee pin, which her late husband Edgar had designed for her. She's sold 350,000, priced at around $35, since 1990.

Selling Point: "If I can look this fabulous, you can look this fabulous!"

Estimated Cut for 1998: $3 million.

Prognosis: This is one resilient lady. Joan's had so many incarnations that her new life as queen of home shopping shouldn't surprise anyone. Unless Oprah gets in on the act, Joan should be one of the most beloved faces on cable.

IVAN AGOSTI/NJ/GAMMA LIAISON

Suzanne Somers

History: Somers played the ditsy blonde in the TV hit *Three's Company*. Since then she's started a support center for families of alcoholi written an autobiography, and put "ThighMaster" into the nation's lexicon. Now she cohosts *Candid Camera* and sells her wares on the Home Shopping Network.

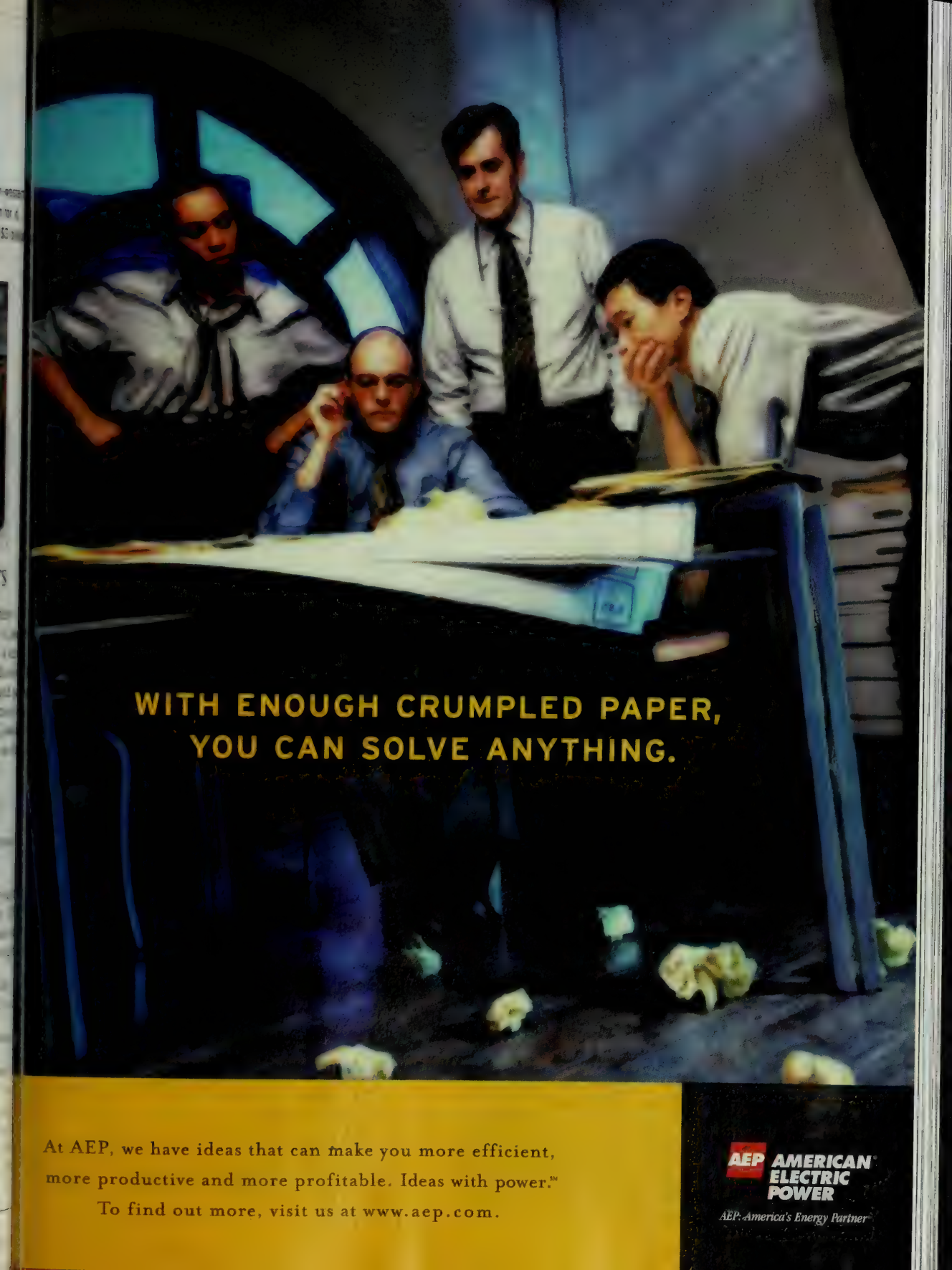
Product Line: Jewelry for HSN. Average Price: $40. Also loungewear and a line of fitness products.

Bestseller: The Somersize Program has sold 112,000 units since 199 For only $42.60, you too can lea how to eat great and lose weight.

Selling Point: "Suzanne's a lady. She's had a hard life and she's rea

Estimated Cut for 1998: $1 million.

Prognosis: Fitness products are great, but the biggest seller on home shopping is jewelry, and H owns the rights to the jewelry li Suzanne hawks. Our advice: Get designer and come out with you own baubles.



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CHEFS

Dough boys

Chef hysteria—it's going on everywhere," reports Leonard Pickell, head of the James Beard Foundation, the overseer of gastronomy's "Oscar" awards.

Thanks to cable TV's Food Network and the evolution of the kitchen into performance art house, much of the hysteria is being cooked up by American chefs for a change. Catering to people's tastes for trendy food and eateries, American chefs are developing a smorgasbord of hybrid cuisines: California, Tex-Mex, Cajun, Creole, Pan-Asian fusion. "Classical cuisine is gone," intones Pickell. "Global is what's in."

"I get criticized by the foodies for not living up to their gastronomic brain cells. Give me a break. A carrot is a carrot."

–Emeril Lagasse

So is entertainment. More than ever chefs are putting their kitchens on center stage. "Fine dining was all a mystery with chefs engaged in a danse de la cuisine," observes restaurateur Barbara Lazaroff, whose husband, Wolfgang Puck, was one of the first to open up his own kitchen. Now, chefs perform before adoring audiences.

"It's connecting people to the creation of the dish, to the drama and spectacle of it all," Lazaroff says. That's why the choicest table at Jean-Georges Vongerichten's newest restaurant is literally in the kitchen.

Unfortunately, the great chefs aren't always behind the stove these days. They're out hawking condiments, endorsing pots and pans and appearing on talk shows. "A single three-star restaurant just doesn't make money anymore," explains Julia Child. "Celebrity chefs have to be on TV."

The biggest new star, Emeril Lagasse, took Child's advice and, in his words, "kicked it up a notch." Says one food critic: "He has become a star of proportions even Wolf [Puck] never dreamed of."

Of course all of this begs the question: If all the great chefs are busy appearing on television, selling frozen foods and managing multiple restaurants like fast-food chains, who's watching the stove? –Juliette Rossant

MICHAEL [illegible]

Wolfgang Puck $10.5

Started with Spago on Sunset Strip in Los Angeles, elevating pizza to haute with signature smoked salmon and caviar topping. Turned kitchens into entertainment vehicles by positioning them in full view of diners. Now owns 32 Wolfgang Puck Cafes, 9 other restaurants, frozen foods line. Wife, Barbara Lazaroff, runs business.

RICHARD BOWDITCH

Jean-Georges Vongerichten $

Classically trained French chef, star French-Thai fusion eatery Vong. Know for using vegetable juices and herb-infused oils to replace cream and butter. Now owns restaurants in New York, London, Chicago, Hong Kong ar Las Vegas. His second cookbook, Jean-Georges: Cooking at Home with a Four-Star Chef, was pul lished last year.

Emeril Lagasse

$24

Corn dog cuisine

Who's television's hottest gastronome? New Orleans-based Emeril Lagasse, of course. Bam!

His Food Network hit, *Emeril Live*—where Julia Child meets David Letterman —features a live jazz combo and lots of hollering and food flinging to the audience. Oh yes, and lots of "bamming"—Emeril-ese for "add more spice."

With his distinct Massachusetts accent, Lagasse is an unlikely champion of gourmet cuisine. But droves of aspiring chefs, intimidated by French accents and fancy recipes, are turning to Lagasse's down-home style where "pork fat rules" and cooking is entertainment.

"His is the kind of cooking show that pleases my garage attendant," says television's gourmet grande dame Julia Child. "Serious cooks don't enjoy it because it's too much of a performance."

Lagasse's response: "I ain't doing this show to reach 100,000 chefs a night."

Reaching his fans hasn't been a problem. His Essence spice line sold 1,500 units in two minutes on QVC. And his fourth cookbook, *Emeril's TV Dinners*, made the *New York Times* bestseller list last year. Trendy cookware maker All-Clad featured the book inside an "Emeril Everyday Pan," and sold 80,000 units in two months.

But the core of the Emeril empire remains his restaurants: three in New Orleans, one in Las Vegas, one in Orlando at Universal Studios Florida, where he blends Cajun and French cooking with a dash of his Portuguese background. TV fans call in from around the country months in advance for reservations.

Lagasse says the secret ingredient to his success has been his ability to create away from the oven. "Chefs have to step out of the kitchen and become restaurateurs and businessmen," Lagasse says in an interview between TV shoots. "They also have to wear other hats: television, public speaking, dealing with lawyers—it goes on and on."

With his Food Network contract in negotiations, don't be surprised if Emeril puts on his lawyer's hat and lands a gig on prime time.

Bam! –Juliette Rossant

$75

Who says chefs aren't stars? Nobu played a gambler in *Casino* with Robert De Niro. Now they're business partners with restaurateur Drew Nieporent in Nobu, with outlets in New York, Las Vegas and London. Style: Japanese cuisine with Peruvian flavors. Now planning a Nobu for the Hard Rock Hotel & Casino in Las Vegas.

$7

In January opened $10 million Restaurant Daniel in New York City's former Mayfair Hotel. The two-story kitchen features a $250,000 Bonnet stove, video surveillance of diners and a business center. Once lorded over the kitchen at famed glitterati hangout Le Cirque. His second cookbook will be published this year.

TALKING HEADS

Hired heads

You can't escape them. Thanks to an ever-growing number of cable news outlets, a handful of legal, political and financial experts are as ubiquitous as beer commercials. Sure, scandal and violence goose TV ratings. But now the subsequent debates and analyses about the scandal are as big a draw as the scandal itself. Today when big news hits, booking agents scurry for the nearest pundit. Boasts celebrity lawyer Alan Dershowitz: "When a legal story breaks, my office knows to gear up."

Of course, supplying the networks with sound bites puts just so much food on the table. So today's talking heads write books, lecture, even star in commercials. The speaker circuit, where pundits are frequently pitted against each other in raucous debates, can bring in tens of thousands of dollars per gig. And though the sparring matches often resemble what one lecture-circuit booker calls "political vaudeville," the grandstanding makes for great free publicity for book, movie and magazine sales. It also helps land a good table at Washington schmooze spots.

"The running joke is that all you have to do is stand on a corner with a placard that says, 'Will pundit for food.'"

–Mary Mata

Desperate for a nightly fix for talking heads, some stations sign talent for hefty fees. One cable station, MSNBC, has effectively written the full-employment act for pundits.

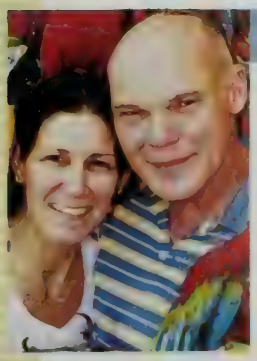
But "expertification," as TheStreet.com's James Cramer calls it, has its price. Viewers want to argue with you when you're waiting to buy groceries. Your peers may ostracize you for selling out. And as with everything on network television, you have to break down your analysis to its lowest common denominator. "You just have to do it with panache," chimes in O.J. Simpson defender Johnnie Cochran.

The lines between news and entertainment—and between law and hoopla—continue to blur.

–Erika Brown

"I've been famous and not famous, and on the whole I'd say, I'd rather be famous."

–James Carville



James Carville/ Mary Matalin $3.4

Ragin' Cajun Carville ran Clinton's '92 campaign; conservative wife Matalin was on George Bush's staff. Their shtick: Slinging mud in TV debates, speeches, commercials. She calls him a "political pit bull"; *Entertainment Weekly* calls the dueling duo "America's second-most annoying couple." Whatever your opinion, you're buying their books, attending their lectures and quoting their commentary at cocktail parties.

Johnnie Cochran

Ever since clearing O.J., he's been r a killing. His soon-to-arrive book o Black Panther Geronimo Pratt is be made into a film by Marlon Brando Sean Penn. One of television's top guys for legal analysis, Cochran ho own *Court TV* show, dumbs down th for other news channels gratis and a hundred lectures a year.

George Stephanopoulos $4 million

White House Wunderkind

To hear his assistant tell it, George Stephanopoulos "is a very private person." Yet he's done a great job keeping his name before the public.

The former Clinton flackmeister was the model for the young campaign adviser who gets a dose of Capitol Hill cynicism in the novel *Primary Colors*. He was the inspiration for Michael J. Fox's vertically challenged Oval Office sidekick in *The American President*. He has even made it onto the sitcom *Friends* as the object of lust on the part of the character Monica.

He now pumps out political commentary for ABC, has landed a book deal worth $3 million about his days at 1600 Pennsylvania Avenue, roams the lecture circuit, is a contributing editor at *Newsweek* and just finished a two-year professorial stint at his alma mater, Columbia. "In every sense of the word, he's an expert in his field," says O.J. prosecutor Marcia Clark. "He the Man."

The Stephanopoulos brand was helped immeasurably by his ex-boss' political near-hanging. Since last year his market value has skyrocketed. "Everyone in the world wants to talk to George," says Katie Long, the shill for his upcoming book. "I'm just not letting anyone through until his book comes out." And this fall he will be busy with a 25-city book tour.

"George became a pop culture character," says former White House press secretary Dee Dee Myers, adding that the young superachiever aide whispering in the President's ear is now part of the iconography of our culture.

Ex-Clinton spin doctor James Carville says he's not that big. "Talk to joke writers; there's a limited number of people whom you could tell a joke about without having to explain," he says. "You still have to explain George. He's not Ross Perot or Michael Jackson." –E.B.

James Cramer $2.8

Hedge fund manager wrote about the market for years, made real news when he launched on-line Wall Street whisperer, TheStreet.com. Investors poured in, including the *New York Times*; now looking to raise up to $75 million by going public. He's also a magazine columnist and TV pundit. The risk of being so high-profile? He was briefly suspended by CNBC last year after being accused, falsely, of shorting a stock he scrutinized.

Alan Dershowitz $2

Don't expect a reversal of fortune from this eagle. The first of the big mouthpieces of broadcasting, Dershowitz pioneered layman's legalese more than 20 years ago. This celebrity defender of Patty Hearst and Claus von Bulow is a Harvard law professor, 14-time author and ten-second-sound-bite machine. (Even his assistant calls him a ham.) When he hones in on catchy phrases, like "Sexual McCarthyism," he writes the book.

MODELS

High-class lookers

Is it possible that American pop culture is getting less superficial? That question is striking terror into the heart of the modeling industry. Conventional wisdom now holds that the public has grown weary of models. Modeling agencies are wringing their hands over the encroachment of actresses onto their turf: fashion magazine covers and big-money advertisements. Doomsayers in the fashion press have even gone so far as to predict the ultimate extinction of the supermodel.

In fact, things aren't so bad. Yes, there has been a bear market in beauty of late. But the salaries of the top models refute the notion that supermodeldom is dead. Actress Jennifer Lopez signed a big L'Oréal contract last year, but that didn't stop Kate Moss from landing a worldwide deal from the company as well.

And appearance fees occasionally still top $40,000 a day. The Victoria's Secret fashion show this February was a smashing success, drawing a million-plus visitors to its Web site with the promise of scantily clad models. Overall earnings for the top five models are up substantially from their 1995 levels.

What's been written off as the demise of models is more likely the normal ebb and flow of popular tastes. "We still have models on the cover, and we'll always have models on the cover," says Trudi Tapscott, the bookings editor for *Vogue*. "We're a fashion magazine and fashion requires models." **–Scott Woolley**

Cindy city

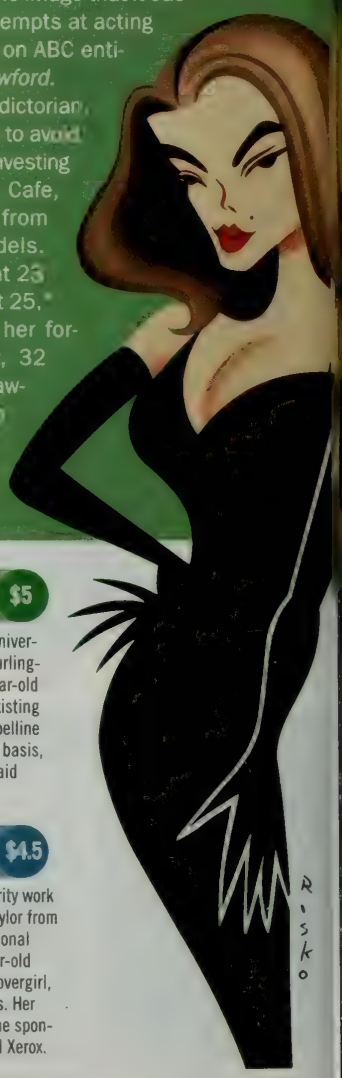
Cindy Crawford **$8 million**

If all models had as much business sense as Cindy Crawford, the industry might not be in its current slump. Crawford does what few other models have managed: develop a persona based on more than just a pretty face.

Unlike some of her competition, Crawford can string together coherent sentences. That ability helped land her the key role as host of MTV's House of Style in the early 1990s. Marriage to actor Richard Gere helped raise her star quotient.

While most supermodels ooze attitude, Crawford delivers a down-to-earth image that ad agencies drool over. Her milk endorsement promotes her small-town-girl image. Her ads for low-end Kay Jewelers connect with middle-class buyers. So resilient is the image that it easily weathered failed attempts at acting and a troubled special on ABC entitled *Sex with Cindy Crawford*.

A high school valedictorian, Crawford had the brains to avoid other pitfalls, including investing in the doomed Fashion Cafe, which got money from her fellow supermodels. "Cindy's biggest fear at 25 was that it would end at 25," says Michael Gruber, her former agent. Even now, 32 and pregnant, the Crawford money machine shows no signs of slowing. –S.W.



WEBSTER/SIPA PRESS

Claudia Schiffer **$10.5**

Schiffer trots the globe making appearances and doing photo shoots 11 months a year. Rivals snipe that she's getting overexposed, but she's built an unparalleled global fan base. Endorsements include L'Oréal; Lycos; Damas, a Middle Eastern jewelry brand.

SIPA PRESS

Christy Turlington **$5**

Being a full-time New York University student put a crimp in Turlington's earnings, but the 30-year-old senior still rakes it in from existing deals with Calvin Klein, Maybelline among others. On a per-hour basis, she's probably the highest-paid model in business.

TIM FULLER/SIPA PRESS

Kate Moss **$4.5**

Checking into a drug and alcohol rehab clinic in November cut into Moss' earnings, but the waiflike model still took home plenty of fat paychecks. Her personal problems might keep her off next year's list; some big clients, such as Calvin Klein, may move on.

ARCHIVE PHOTOS

Niki Taylor **$4.5**

An admirable amount of charity work and 4-year-old twins keep Taylor from earning much from paid personal appearances. But the 24-year-old makes big money from her Covergirl, Nokia and Liz Claiborne deals. Her Web site has landed big-name sponsors including Nike, Sony and Xerox.

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POP GLERGY

Opiate of the masses

They don't have pews or weekly services, but from their publishing pulpits they reach a congregation of 50 million readers, preaching love and redemption, sacredness and salvation, relationships and healthy living. They are the inspirationalists, practicing at the intersection of religion and entertainment.

"People tell me all the time that they are interested in having a spiritual life," says Thomas Moore, the therapist and bestselling author of *Care of the Soul*. "But that doesn't necessarily mean they want a religious life." Since the 1960s, when Thomas Altizer wrote that God had kicked the bucket, churches and temples offering the traditional versions of religion have struggled to hold on to their members and donations. But armchair religion, offering spiritual peace through pop psychology, is doing quite well, and some practitioners make an extremely good living at it. "Old-line religion screwed up by lecturing and moralizing to everyone," muses Jack Canfield, coeditor of *Chicken Soup for the Soul*. "Today's society doesn't need it. They want an inspiring story."

Inspiration sells, accounting for a healthy $1 billion chunk of the book publishing industry. But will it satisfy America's need for spirituality? Says Leigh Brown, director of the Independent Presbyterian church in Birmingham, Ala.: "Most of us want light and easy. But in the end, the easy answers aren't fulfilling."

–Morgan Murphy

STEVE LABADESSA/ OUTLINE

Mark Victor Hansen & Jack Canfield — $10

Duo that ladles up the *Chicken Soup for the Soul* series—*Chicken Soup for the Teenage Soul . . . for the Pet Lover's Soul . . . for the Woman's Soul*, etc.—have sold 46 million books. This year look for a *Chicken Soup* sampler in cases of Diet Coke.

Marianne Williamson — $2.5

Formerly a "total mess," Williamson got straight with God and now has a loyal following of millions who buy her books *(A Woman's Worth, A Return to Love)* and tapes on love and redemption. Now turning to politics with her latest book, *The Healing of America*.

James Redfield — $1.25

Author of *The Celestine Prophecy*, Redfield was the top-selling American fiction author in 1996 and 1997. Rejected more than two dozen seven-figure offers for the movie rights to the books he calls "spiritual concepts in story form." New book [illegible] titled *The Secret of Shambhala*.

Thomas Moore — $5

Former monk and therapist, he scored with 1992 bestseller *Care of the Soul*, the thinking man's guide to spirituality. He preaches divine immanence, i.e., that God is within: "Too often religion, focusing on another life, has let this one go to hell."

LOREN LONG

Deepak Chopra — $6.5 million

New age sag[e]

Ask Deepak Chopra who God is and the former chief of staff at New England Memorial Hospital will show you a chart. There, on one double-spaced page, lies his theory of the Almigh[ty].

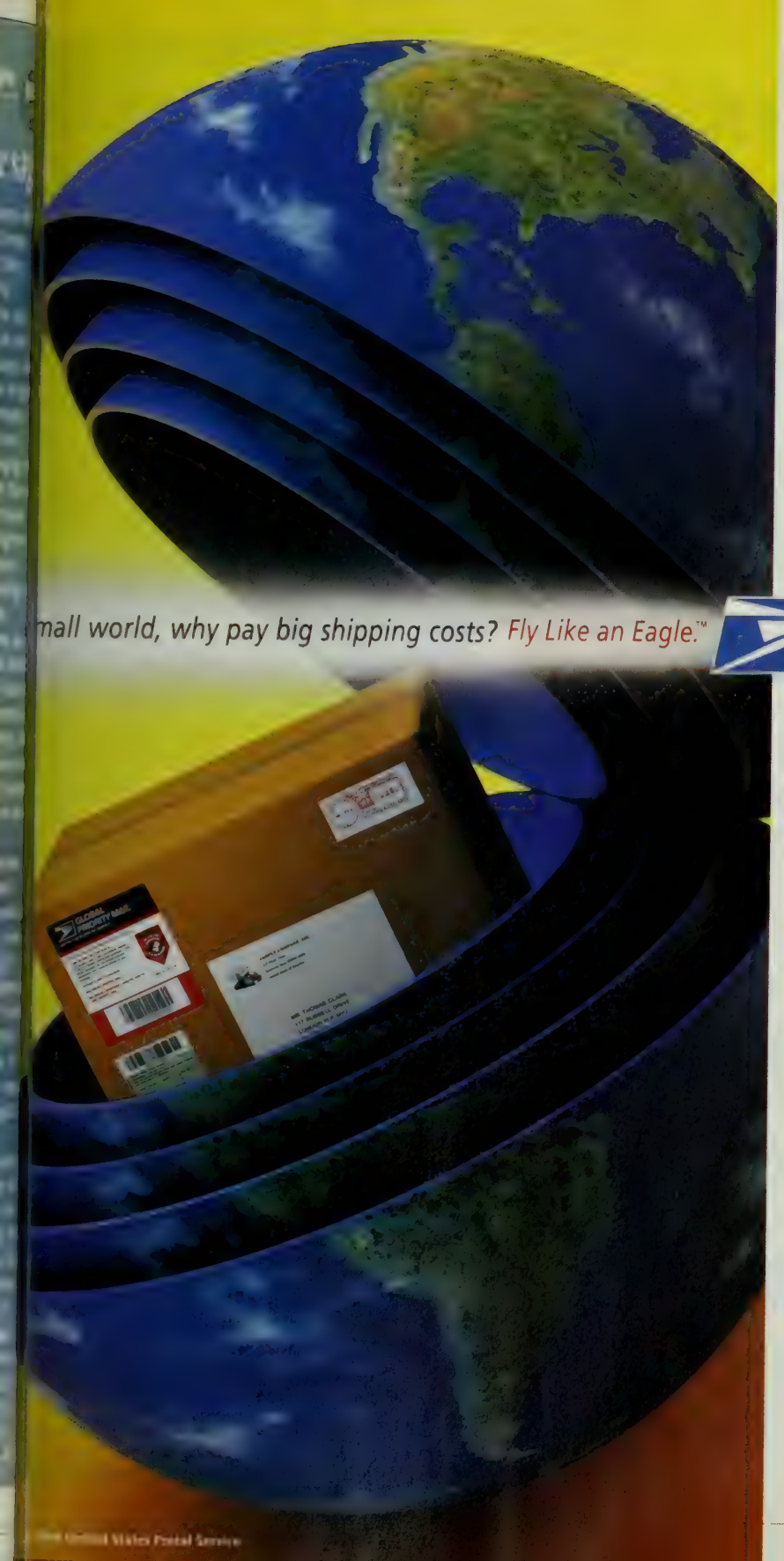
Philosopher, healer, mystic and preacher, Deepak damns aging an[d] "old white man in the sk[y]" religion, and promises new levels of enlightenment for people who blend Eastern healing wi[th] Western medicine.

In Chopra's view, science alone cannot heal: "In a world where scien[ce] has been so successful [at] dismantling mystery, no[w] more than ever, we hav[e] a deep spiritual hunger that goes beyond religious dogma."

Chopra believes Americans have turned the medical doctor into a medical deity. Why? "Because modern-da[y] religion doesn't satisfy even the slightly educated person. It has controlled and regul[ated] people through guilt and fear."

If God is to be found, Chopra believes, He will emerge through the sciences; a corollary is that spiritual leaders are likely to be technically trained. Until then, he doesn't worry about his image being tarnished by heresy. "My image is going to be defiled one day, and if it isn't, I will defile it for you."

–M.M.



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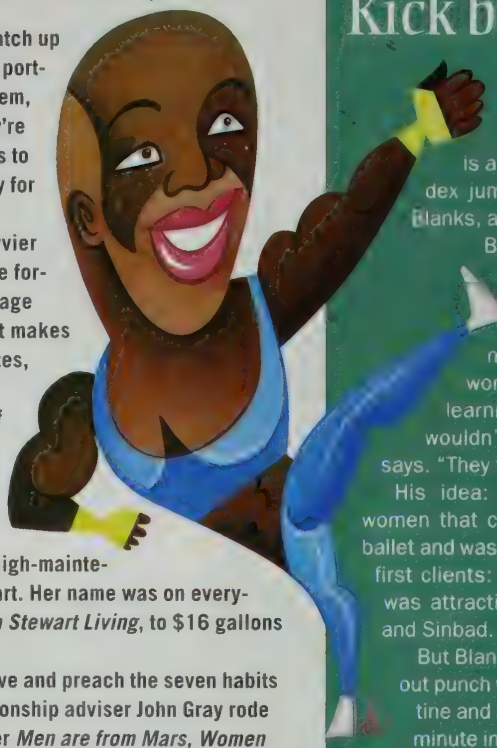
They improve your home, patch up your love life, update your portfolio, repair your self-esteem, tighten up your flabby body. They're the fixer-uppers, and there seems to be no end to what people will pay for a little of their advice.

Today's advice-givers are savvier than they were in years past. The formula has been to keep the message simple, the concept catchy. That makes it easier to package into cassettes, calendars, television shows, board games, magazines and, of course, books. Self-improvement books generated an estimated $581 million in sales last year.



Leading the fixit charge was high-maintenance homemaker Martha Stewart. Her name was on everything from her magazine, *Martha Stewart Living*, to $16 gallons of paint.

Stephen Covey continued to live and preach the seven habits of the highly effective, and relationship adviser John Gray rode the momentum from his bestseller *Men are from Mars, Women are from Venus*, a bestseller for five years.

The fitness craze marches on. Billy Blanks, the Tae Bo trainer, and author Richard Carlson have one thing in common: sweat. Blanks' high-powered workouts encouraged it, Carlson's calming paperbacks didn't. Carlson's 1997 book *Don't Sweat the Small Stuff* is not small stuff. Hyperion printed 7.5 million copies of it.

–Joanne Gordon

Billy Blanks $12 million

Kick bucks

Hit the showers, Richard Simmons. Television's newest fitness drillmaster is a sinewy bald man in a spandex jump suit. His name is Billy Blanks, and he's the man behind Tae Bo, a hip-hop-flavored self-defense workout.

A former world karate champion, Blanks noticed years ago that women lacked a program for learning self-defense. "Women wouldn't study karate," Blanks says. "They felt it was too aggressive." His idea: a self-defense class for women that combined martial arts and ballet and was done to modern music. His first clients: six hairdressers. Soon he was attracting stars like Goldie Hawn and Sinbad.

But Blanks, 43, delivered his knockout punch when he videotaped his routine and sold it on television. His 30-minute infomercial airs thousands of times a day, infecting virtually every metro market in the country. The tapes cost $60 for a set of four. More than a million have been snapped up since the spot first aired last August.

With the revenues pouring in, Blanks is considering rolling out a national chain of Tae Bo training centers later this year. A sporty upscale clothing line is in the works. Agents are feuding over rights to his book.

Blanks insists Tae Bo is not a fad. "I've been doing this for 20 years," he says. "If it was a fad it would have dropped off a long time ago."

He may be right. People are now ripping him off. TV ads for Tae Fit star a bald black man in red tights. Blanks did not get a kick out of the imitation and is suing.

–Adrienne Sanders

STEVE DOUBLE/ RETNA LTD

Martha Stewart $18

The doyenne of discriminating taste split from Time Warner in 1997 and formed Martha Stewart Living Omnimedia: magazines, books, TV, radio, newspapers, catalogs. Her merchandising arm, Martha Stewart Everyday, should top $1 billion in sales this year.

Stephen Covey $5

His *Seven Habits of Highly Effective People* advises professionals how to manage their time and balance their lives. Merged Covey Leadership Center with Franklin Quest in 1997. FranklinCovey now a self-improvement powerhouse with 125 retail stores.

John Gray $10

He's author of *Men are from Mars, Women are from Venus*, a handbook that dishes out tips on relationships and sex. The series has spawned ten books, a magazine and Mattel board game. The former Hindu monk made six trips to Asia "in search of enlightenment."

Richard Carlson $4.3

Carlson's *Don't Sweat the Small Stuff* served up digestible bits of advice on how to minimize stress and conflict in life. Six similar titles followed, including *Don't Sweat the Small Stuff at Work* and *Don't Sweat the Small Stuff with Your Family.*

When the employees of Capital One had some things to say about their unusual working conditions, they went straight to the authorities.

The authorities, that is, who publish a survey in *Fortune*® magazine. The ones who travel the country every year and compile the 100 best companies to work for in America. After talking to 27,000 employees nationwide — including many of ours — Capital One landed prominently at #41 on the list.

Were we honored? Who wouldn't be, alongside Intel, Starbucks, Nordstrom, Sun Microsystems and L.L. Bean. Actually, truth be known, we were ranked even higher than they were.

So what does it take to make this list, let alone the top half of it? A lot.

The survey considered pay, benefits, vacation, child-care and dress code. But they also measured things that only the people who work there can describe and quantify. Like trust in management. Pride in work. Job security. Openness of communication between management and workers at all levels. And, not to be underestimated, how much fun people have at work. We scored high on all counts.

At Capital One, our associates (the word we use instead of employees) come first. All full-time associates receive medical, vision and dental coverage starting the first day on the job. Not to mention, 10 paid holidays, 3 family care days and 3 weeks of vacation the very first year on the job.

We don't just help pay for child-care, we go out and find it for everyone who needs it. And of course, there is a great 401K plan and casual dress all week long. But the ways we respect our associates go beyond that.

People at Capital One are rewarded for performance, not for the position they happen to hold. Everyone is offered stock in the company. And always at a 15% discount.

Everyone is eligible for cash incentives. Everyone is eligible for 100% tuition reimbursement when they continue their education.

So what about this concept of fun in the workplace? Capital One managers have a quarterly "fun budget" for every person they manage, to make sure work and play stay in balance.

Does all this really translate into a great place to work? Looking at the numbers, 93% of the people who work for Capital One are happy with their benefits. 90% voted this a fun place to work. And 95% say they are proud to work here.

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Ranters and ravers

From on-air performances of bodily functions (Howard Stern) to weaving tales of preposterous conspiracies (Oliver Stone), these controversialists make a name for themselves by stirring up trouble, pointing fingers or just being downright obnoxious.

Love 'em or hate 'em, they aren't doing their job unless someone is either cheering them on or cursing them out. "Controversy has always attracted me," says Geraldo Rivera, NBC's unlikely new golden boy in the ratings (the Nielsen rating jumped 130% for *Upfront Tonight* at 7:30 p.m.). "The outlaw status is part of who I am."

With apologies to all those performers who do not want to appear on the same magazine page with Howard Stern, we define the rant-and-rave class broadly. There's talk radio, which captures 15% of the listening audience and nearly 25% of all radio ad revenue. Stern's raunchy celebrity aside, the leaders in this category tend to have a more political flavor: Rush Limbaugh, Oliver North and burglar G. Gordon Liddy.

"I can't go anywhere without someone telling me I'm great. How bad is that in your life?"

–Bill Maher

"I think my celebrity is fun. But it's stupid— I have no talent."

–Jerry Springer

On television it's an endless procession of talk show hosts: Ricki, Montel, Sally Jesse Raphaël, Rosanne, Martin Short, Howie Mandel, Regis & Kathie, Donny & Marie, Jenny Jones. Even polemic filmmaker Oliver Stone is trying to bring his conspiracy-mongering to TV. (Of course, it took a conspiracy to keep him off the air.)

One thing is sure: Playing devil's advocate is big business.

–Doug Donovan

PETER FREED/OUTLINE

Howard Stern $20

The self-anointed King of All Media's new target: network television. CBS unleashed Stern's raunchy hit radio show onto late night TV. With a parade of strippers, Ku Klux Klan members and a recurring cast of degenerates, the hour-long show is making NBC's *Saturday Night Live* look like Sunday morn ng mass

Jerry Springer $

You'd think eight years of the Jerry Springer Show were enough, but h new contract with Barry Diller's St USA calls for five more. Now the ta show host is turning to Tinseltown with a role in the upcoming *Austin Powers* sequel. Thankfully, there w be a *Ringmaster* sequel. "DeNiro doesn't have to worry, I'm not looki to make a career in movies."

DAN ADEL

Geraldo Rivera

$10 million

Rough sleaze ahead

When sex, lies and videotaped depositions become the stuff of government, who better than Geraldo Rivera to deliver the requisite commentary? The burlesque coming out of the White House is tailor-made for his tabloid tactics.

Recognizing this, NBC paid big last year to keep Rivera, 56, from jumping to Fox: $36 million over five years. The Long Island native and Brooklyn Law School graduate now hosts two shows—*Upfront Tonight* and *Rivera Live*—on the network's business cable affiliate, CNBC. He also gets a prime-time documentary series reminiscent of his days as an enterprising television reporter in the 1970s. The catch: End his bawdy daytime show, *Geraldo*.

Rivera is certainly dressing the part of a respectable newsman: finely tailored suits and horn-rimmed glasses. Contrast with the bandages and broken nose he sported on television after skinheads roughed him up.

"Sure, the daytime show generated a certain amount of baggage," Rivera says. "But I hear nothing of those days except snide remarks from critics who can't attack the substance of what I'm doing now; shots like, 'You were a whore once; how can you be a queen now?' "

His response? Classic Rivera: "Screw you."

Because Rivera retains his flamboyant advocacy style of journalism, NBC will never give him the respect afforded Tom Brokaw or Stone Phillips. Rivera's nightly, unabashed defense of Clinton thoroughly nettled NBC news execs.

Conferring respect or not, Rivera's lush contract has finally given him the money needed to fulfill his dream of sailing around the world. "My goal is to be on the dateline near Fiji or Tonga on Dec. 31, 1999, and broadcast live from there." –D.D.

Bill Maher

$7

Maher has steered his righteous smart-aleck routine into big bucks with his late-night round table, *Politically Incorrect*. The show pits the likes of heavy-metal guitarist Slash against NRA heavy Charlton Heston. Debuting on ABC in January 1997, Maher is now watched by 3 million viewers and is creating a new sitcom for Fox.

ARMANDO GALLO/RETNA LTD

Oliver Stone

$2.5

Even in a quiet year the conspiracy-freak filmmaker exposed another sinister plot, this one hatched by Disney's ABC and Time Warner's TNT. Both shot down his Illusions Entertainment show, *Declassified*. Stone claims that there was a conspiracy to snuff the show's investigation into the downing of TWA Flight 800.

SHOOTING STARS

One-year wonders

When the world rang in 1998, virtually no one knew of Monica Lewinsky. Days later cyber-muckraker Matt Drudge "broke" the news of the onetime White House intern's relationship with the President. "That one act of hitting the 'enter' button had to be the most profound thing I've ever done," Drudge later confessed. In an instant Lewinsky and Drudge became celebrities.

Today Lewinsky refuses to indulge autograph hounds, but mementos aren't rare. Her face was splashed across magazine covers and featured on a stamp issued in a region in the Republic of Georgia. Drudge's readership sprang from 9 million to 123 million. Neither has made big money (yet), but some around them did: Frank Meeks, owner of 58 Domino's Pizza stores in the D.C. area, saw delivery revenues leap by several hundred thousand dollars as he fed the wee-hour efforts of scandal-driven reporters and politicians.

While Jesse (The Mind) Ventura's trip to Minnesota's Governor's mansion revived professional wrestling, it was Stone Cold Steve Austin who cashed in on the sport of the moment. Shoshanna Lonstein, famous for being Seinfeld's ex, is cashing in on her 15 minutes of fame by shilling scanties.

In "The Spirit of the Age" (1954), Louis Kronenberger noted, "These days whole segments of the population wake up to find themselves famous, while . . . whole contingents of celebrities wake up to find themselves forgotten." Next year these shooting stars could find themselves as obscure as Monica once was. –Ben Pappas

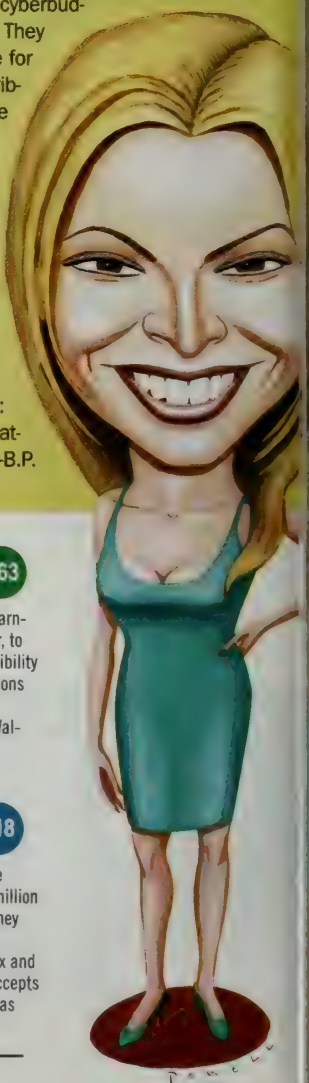
Cindy Margolis $1.3 million

Cyberceleb #1

The *Guinness Book of Records* says she's the most popular person in cyberspace. Her appearances on Howard Stern's TV show gave his program its highest ratings. She's Cindy Margolis, the most downloaded woman of the past three years, according to *Yahoo!* magazine. "I was born on the Internet," beams Margolis. "There are celebrities who have their own sites, but I am one of the few who can say the Internet made me."

Three years ago Margolis was a prize pointer on *The Price is Right* when she landed a spot on the TV show *Extra*, which offered images of her on its Web site. "I remember thinking, 'I hope at least one person downloads me, whatever a download is,'" laughs Margolis. Download they did: every ten seconds in the first 24 hours.

Margolis decided downloading was cool and started her own Web site. Today 43 million "cyberbuddies" have visited her site. They pay as much as $16 apiece for photos of her. Margolis attributes her popularity to the site's wholesome content—she doesn't pose nude—and the personal attention she pays her fans, 40% of whom are women. She chats on-line with fans and responds to women seeking advice. In January she closed a six-figure deal with CBS' Imark for a talk show to air in the fall. Says Margolis: "I always promise to raise ratings, and I've never failed." –B.P.



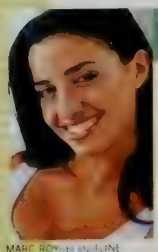
DARRYL ESTRINE/OUTLINE

Steve Williams $5

Big, bad, bald. "Stone Cold Steve Austin's" wrestling career took off when his character became a beer-swilling antihero. His catchphrases: "Austin 3:16—I just whupped your ass," "Hell yeah," and "Because Stone Cold said so." Stone Cold's first cameo on the TV show *Nash Bridges* aired last month.

Monica Lewinsky $.63

Maybe we should have put her earnings down as a negative number, to reflect legal bills. Choosing credibility over cash, she turned down millions from media sources to appear, uncompensated, with Barbara Walters. She did get a $625,000 book advance.



MARC ROYCE/OUTLINE

Shoshanna Lonstein $.01

Don't think of her as Seinfeld's ex. She's one savvy entrepreneur. A year and a half after graduating from college, Shoshanna launched a line of dresses and thongs for the St. Bart's set in November. Her wares are now in 180 stores, including 1[illegible] in Japan. 1999 sales: $1 million.

Matt Drudge $.18

The only fortune connected to the cyber-sludgemeister is the $30 million that ex-White House denizen Sidney Blumenthal is suing him for. But Drudge will soon augment his Fox and America Online salary. He now accepts banner ads, which could rake in as much as $185,000 in 1999.

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The screen team

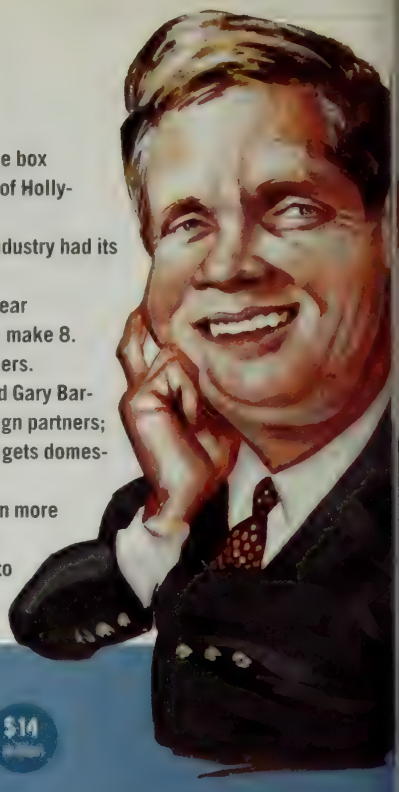
Movies had their biggest year ever in 1998, raking in $7 billion at the box office. So why is the whiff of recession wafting through the offices of Hollywood's producing elite?

Production costs. Even as blockbusters chalked up record crowds, the industry had its worst return on investor capital ever: –2%.

So Hollywood is once again trying to end the spending free-for-all. Last year studios made 15 pictures with budgets north of $90 million; this year they'll make 8. And to get film financing off their balance sheets, they're finding other partners.

Some producers are creating their own mini-studios. Roger Birnbaum and Gary Barber founded Spyglass last year, raising much of its startup capital from foreign partners; it will produce five movies a year for Disney over the next five years. Disney gets domestic distribution; the foreign partners get some overseas rights.

Producers are seeing the big money in television. Brian Grazer could earn more from syndication of his 1998 hit shows *Felicity* and *Sports Night* than he did from his movie career. Robert Simonds inked a $3 million deal with Disney to develop sitcoms, with a 25% cut of syndication sales. –Michelle Conlin



Brian Grazer $26

You think Grazer's spiky hair is high voltage? This guy even takes business calls in his bathroom. His recent films *Psycho* and *Mercury Rising* flopped, but he's still collecting huge checks on hits like *Apollo 13* and *Liar, Liar.* Up next: television. "I want to lick it."

Jerry Bruckheimer $22

Known for in-your-face features like *Top Gun* and *Days of Thunder*, Bruckheimer kept the glass flying with last year's *Enemy of the State* and *Armageddon.* Together, the movies racked up nearly $600 million at the box office.

Roger Birnbaum $13

Birnbaum and partner Gary Barber's new production company, Spyglass, raised $1 billion to make movies for Disney. The pair retain ownership of their pictures and minimize the risk by bringing in foreign equity partners.

Scott Rudin $10

Hollywood's quality producer will take a fee of just $200,000 for a project he believes in. "I won't," says fellow producer Brian Grazer. "But I respect that." Rudin's heart is now set on Broadway, where he's producing *Wiseguys*, a new Steven Sondheim musical.

Robert Simonds $14

Low-cost producer

Sure, *The Waterboy*'s no *Casablanca*, but producer Robert Simonds is resurrecting the way business was done in Hollywood's Golden Age. Instead of ceding control to spoiled stars who demand a fortune and lard the budget with lavish perks, the hyperkinetic producer of such dumbed-down flicks as *The Wedding Singer* and *Happy Gilmore* retains a lock on his productions the same way David O. Selznick did on *Gone with the Wind.* Simonds develops the scripts, casts the principals and assembles the crews himself. Then, just two weeks before shooting begins, he hires amateurs instead of auteurs. This way, Simonds' directors aren't steering the production. He is.

Simonds doesn't bow to the studios, either. Because his movies' budgets are cheap—about $20 million per picture—he doesn't have a bunch of sl executives telling comedians i Adam Sandler how to make 15 year-old boys laugh. It's a goo thing they don't. Together, Simonds' *Waterboy* and *Wedd Singer* cost just $40 million an grossed $345 million last yea

In a business notorious for lack of cost controls, Simonds known for bringing an M.B.A.-li discipline to moviemaking. His pictures, which he targets to t previously neglected teenage-b niche, come in on time and on budget. All this enables the fa talking 35-year-old to achieve what is arguably one of the hig est returns-on-investment in H lywood, 40%, versus the 6%-pe picture average.

All this from a guy who onc flirted with becoming a priest. Simonds eventually went on t study philosophy at Yale, whic taught him how to create cohe sion out of chaos. The perfect discipline for a future Hollywoo player. –M.

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INFORMERS

Anchors away

Minimum wage for network news anchors is now $7 million a year. But don't envy these people. They don't get overtime.

Dan Rather delivers the CBS evening news at 6:30 p.m. and hosts *48 Hours*. Other moonlighters include Katie Couric *(Today, Dateline NBC)*, Tom Brokaw (*NBC Nightly News, Dateline* and MSNBC specials) and Diane Sawyer *(20/20, Good Morning America)*.

What's going on? The networks are increasingly reliant on cheap, profitable news-magazine shows, which need marquee names. The roster isn't that deep.

"There are only about a half-dozen network people who can put eyeballs on a screen today," snipes Roger Ailes, who heads Fox's news division. "The networks have to use them as much as they possibly can."

Relying on the same set of faces makes it harder to break in new talent. So where does the next generation of stars come from? Only NBC, which uses its cable networks CNBC and MSNBC to develop talent like anchor-in-waiting Brian Williams, has what you could call a farm team. And as the networks' three anchors gray, the free agents of tomorrow will have even more clout come negotiation time.

–Peter Kafka

Diane Sawyer

$7 million

The good soldier

Maybe it's time for Diane Sawyer to rethink her feelings about loyalty.

In 1994 the former *60 Minutes* anchor turned down overtures from NBC and CBS that could have paid her more money in favor of an offer to re-up with ABC. Three years later she turned down advances from CBS and again extended her reported $7 million ABC contract.

Her reward? Last year her *Prime Time Live* show was merged into Barbara Walters' *20/20*. This year ABC News boss David Westin asked her to start showing up at 5 a.m. at *Good Morning America* to try to revive the show while still working on the prime-time news magazine.

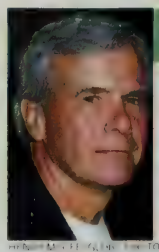
For now Sawyer says she's content working both jobs. Westin better make sure she is: Her contract runs out next year.

The 53-year-old, who started her career as a "weather girl" at a Louisville TV station, represents a particularly important set of attributes for the network. Sawyer is a glamorous face (her celebrity quotient gets a boost from her marriage to director Mike Nichols) who maintains a reputation as a hard-nosed reporter. Just ask Ken Starr, who had to fend off her question about the newsworthiness of his sex life in the exclusive she got with him last November.

–P.K.

Barbara Walters $8.5

Monica Lewinsky could get big bucks for her first televised interview, but Walters had enough clout to lock her up for a spring sit-down, free of charge. Has equity in shows she produces for ABC's entertainment arm. Last year launched The View, a successful midmorning coffee klatch.



Tom Brokaw

Spent the decade moving his newscast from also-ran to top the heap. Now a force in book *The Greatest Generation* a blo buster with 1.9 million in prin counting. The promotional bo got from NBC, which owns a ity stake, didn't hurt.

Peter Jennings $7.5

Trails Brokaw in ratings and book buzz. But while his doorstop-sized *The Century* (602 pages, $60) is a success, neither Jennings nor his co-author receives royalties. ABC pockets those, along with any revenue generated by a companion documentary series set to air this spring.

Katie Couric

Renegotiated her NBC contra last summer from a position strength as top draw on mon making *Today* machine: "The work makes a lot of jack off us." Now bouncing back from loss of husband last year to colon cancer.

TRICIA MEADOWS/ GLOBE PHOTOS

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Looking to jazz up the next annual sales conference? For $25,000 you can hire satirist P.J. O'Rourke. Spend $40,000 and poet Maya Angelou will address the crowd. For $60,000 you can import a former world leader like Margaret Thatcher. Another $20,000 will get you Colin Powell.

The lecture circuit has long been a gravy boat for our national icons. But America's obsession with celebrity has lately driven appearance fees into the stratosphere. "When I first started in this business, $40,000 was a high rate," says Jamie O'Connor, who books celebrity speakers for International Management Group (IMG). Today rates of $70,000 and $80,000 are common. Simply speaking, the work's never been better.

And why not? Celebrity speakers fill seats. "It's the buzz of that person being there," says Don Epstein, president of Greater Talent Network. "That should be secondary, but it's usually primary."

The most popular speakers? Politicians, coaches, athletes, authors (Tom Wolfe: $45,000), business gurus (Harvard's Michael Porter: $100,000)—even futurists (Alvin Toffler: $30,000). But technology was last year's biggest growth area, with its prophets Nicholas Negroponte and Esther Dyson ($40,000 each) in big demand.

Fees typically cover a 45-minute talk and a 15-minute Q&A—not including first-class transportation and accommodations. It's pricey, but you usually get what you pay for. "At those rates," says Betsy Berg, head of the lecture division for the William Morris Agency, "they'd better know how to talk." –Leigh Gallagher

"I always start off with a joke—something to let them know they don't have to worry about me. Then they say, 'Oh, okay, we don't have to treat him like an eggshell.'"

–Christopher Reeve

Christopher Reeve

Man of spiel

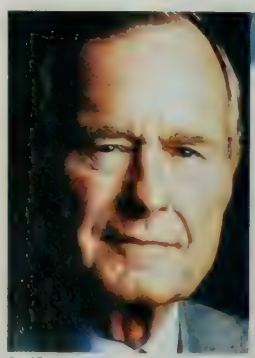
I'm going to pay for tha introduction later," jokes Christopher Reeve, settling in to address a crowd of 2,5(at Washington's Kenn Center, after his wife up an adoring introduc The night's topic: inner strength.

Reeve, 46, has a lot t say about inner strengt and audiences love to he it. The event was one of 40 speaking engagemer the actor/director acce each year, making him o of the most popular spea ers on the circuit. His rat $60,000. Factor in the $40,000 it can cost to

M

Colin Powell $4.8

National Security Advisor to Ronald Reagan, Chairman of the Joint Chiefs of Staff under Bush and Clinton, he's been the top-earning speaker of the decade. Sure, he could have been the first black President in America, but his current earnings make leading the country look like charity work.



TIMOTHY GREENFIELD-SANDERS/ OUTLINE

George Bush $

The nation's 41st President speaks for some $70,000 a pop at 30 paic engagements and at least twice a many pro bono gigs a year. Focusi mostly on leadership issues, the 7 year-old is popular at corporations like PepsiCo, where he spoke to 3,000 franchisees at a convention Hawaii celebrating the company's centennial.

nsport Reeve and his
ff of six by private jet,
d on hour-long personal
pearance by the former
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wards of $100,000—
os in the industry.
Reeve isn't new to public
eaking. An active lobby-
for the National Endow-
nt for the Arts, he spent
early 1990s pushing
e cause on Capitol Hill,
CNN's Crossfire and on
e lecture circuit, where
captivated crowds with
s good looks and Holly-
od success. A compet-
equestrian, licensed
ot and accomplished
anist, Reeve barely
eded his on-screen
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ough audiences ate that
, too. Still, he barely had
he for a dozen paid
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mmanded a meager
5,000 fee.
But that was before the
g accident in 1995
at left him paralyzed from
second vertebra down.
Reeve's message is
idedly stronger.
eled onstage by a
se, he speaks softly

through a microphone attached to a ventilator, pausing between phrases to replenish his air. "It's still difficult for people to see me come out in a wheelchair," he says.

Reeve's themes include leadership, responsibility and reaching for one's goals (his own: standing before he turns 50). He never uses notes.

Ever the lobbyist, Reeve rarely drifts from his personal crusade: increasing funding for spinal cord injury research. But there doesn't seem to be an audience that can't relate to his message. "His appeal is universal," says Betsy Berg, the William Morris agent who books his appearances. "He's gone through everybody's worst nightmare."

–Leigh Gallagher

Talk soup

The five people below don't make our speakers list, but their services are still in great demand.

Name/ Fee per engagement

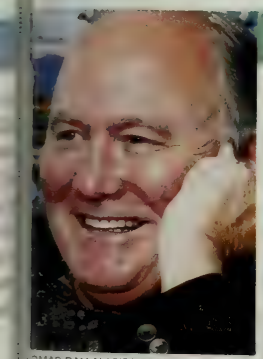
Bill Cosby/ $120,000
The Cos offers equal parts shtick and social commentary.

Muhammad Ali/ $100,000
He doesn't deliver a speech, but the mere presence of the former heavyweight champ still captivates a crowd.

Michael Porter/ $100,000
The Harvard management guru's teaching schedule precludes more than a few dates per year, but demand is high—so's the fee.

Nicholas Negroponte/ $40,000
Technology's hot and so is Negroponte, head of MIT's Media Lab.

John Glenn/ $0
Agents got five to ten calls a day after he returned from space last year, but so far the former senator has shunned the speaking circuit altogether.



OMAS DALLAL/ SIPA PRESS

H. Norman Schwarzkopf $2.1

Self-discipline, personal responsibility and patriotism are common themes when Schwarzkopf takes the stage. Demand isn't as hot as it was following the Gulf war, but Stormin' Norman still wins bookings from the likes of American Express and Peter Lowe's Success Seminars.

LYNN GOLDSMITH/ CORBIS

Pat Riley $1.2

The Miami Heat basketball coach supplements his $3 million salary by moonlighting as a motivator. His style and championship rings can command $50,000 an appearance, though his schedule allows little more than 20 dates per year. Typical audiences: Donaldson, Lufkin & Jenrette and Schering Laboratories.

Has-been performers keep the backwaters of America entertaine But, hey, a guy's got to make a living.

I believe in yesterday

By Joe Queenan

Because America has always been obsessed with who is hot and who is not, a national haughtiness toward has-beens has long prevailed. Once they are no longer fabulous headliners, lounge lizards of the Engelbert Humperdinckian ilk immediately become figures of mockery, and previously idolized rock bands become the subject of satiric films *(This Is Spinal Tap, Still Crazy)*.

In America the party line is that no one could possibly be niftier than the flavor of the month (Spice Girls, Alanis Morissette, Ice T), while no one could possibly be lamer than the former flavor of the month (Vanilla Ice, Milli Vanilli, assorted Ice-somethings). In the opinion of the arbiters of public hipness, entertainers whose stars have set should simply pack it in, leave town and die.

Don't pass me by: The Beatles are long gone, but Ringo Starr lingers on. And on . . . and on.

From both a cultural and an economic point of view, there is something disingenuous about this knee-jerk contempt for has-beens. If has-beens are pathetic losers, why then does Tom Jones still pull down $125 a ticket when he visits supper clubs in suburban New York?

How do performers like Barry Manilow manage to sell out Radio City Music Hall eight nights running every year, and why does Wayne Newton still pack them in at the MGM Grand in Vegas? And if has-beens are shadows of their former selves, now reduced to scrounging for odd jobs, collecting Coke cans, singing for their supper, then how did Branson, Mo.—the very Valhalla of has-beens like Andy Williams and Tony Orlando—become one of the biggest tourist attractions for country fans in the U.S. today?

The fact is, has-beens are and always have been a vital fixture of the entertainment universe. Just run the numbers. At any given time no more than a handful of entertainers can truly claim to be hot; everyone else is a performer whose career has "crested," "plateaued," or, in extreme cases, "gone down the toilet." But even after the spotlights have dimmed, these ostensibly washed-up acts continue work, continue to command reasc able ticket prices, and continue to ha Visa bills that have to be paid.

One need only consult the lo concert listings to see how true this When I recently paged through guide to upcoming engagements the greater New York area, my ey spied such predictable names as Ala Morissette, Marilyn Manson a Lucinda Williams. These acts are b these acts are hot; these acts s records; these acts still have some their best years ahead of them. But the literally hundreds of acts passi

ough New York, New Jersey and Connecticut in the next few months, y a handful (probably less than 5%) uld truly be described as "hot" ertainers.

More typical were such names he Allman Brothers (Dixie- k has-beens), Black Sabbath avy-metal has-beens), Kenny gers (drugstore-cowboy has- n) and Julio Iglesias (Latin nge lizard has-been). There e big-time has-beens (Ringo rr), medium-size has-beens ngo Starr's entire band, con- ing of Cream's Jack Bruce, Procol Harum's Gary ooker), diminutive Spring- en-clone has-beens (South- Johnny) and even would-be has- ns (Steve Forbert, Joe Ely).

The ranks were certainly not limited age or genre. Folkie has-beens ged from the durable Jerry Jeff lker to the cornball Kingston Trio the seemingly indestructible Peter, l & Mary.

Jazz-beens included everyone from Paul to Gato Barbieri to . . . well, rybody. Because let's face it: Almost jazz performers are has-beens. ere was even a whole genre of sib- has-beens, including Brian Wilson, strange Beach Boy, and Dave vies, lead guitar player in the Kinks younger brother of Kinks front n Ray Davies. And that's not even ntioning Sloan Wainwright, minor -been sister of bona fide has-been udon Wainwright III, who just hap- ns to be the former husband of zzy Roche, one-third of the quirky- ntoozy has-been ensemble the ches, and a wonderfully talented -been in her own right.

Clearly, the derisive term has-been is t entirely accurate in describing these performers. Has-been conveys a sense that these performers are abject rejects playing for nickels and dimes in Altoona. In fact, most of these performers do not play Altoonic venues—at least not yet. But they do put on entertaining, highly professional shows that people want to see. It's just that the people who want to see them aren't as numerous as they used to be and won't pay quite as much money to see them as they would pay to see Madonna.

Yet the importance of these acts cannot be denied. Without the legions of has-beens who do most of the heavy lifting in the show business world, entertainment would be severely curtailed in major metropolitan areas and would virtually cease to exist in the heartland of America. Eric Clapton is not coming to the local music fair, but Eric Carmen probably is.

And when he gets there, the audience will be very happy to see him. So maybe it's time we as a people retired the pejorative term "has-been" and switched to something more refined and elegant like "former headliner," "living legend," "senior icon" or "superstar redux." As long as the promoters don't get greedy and raise the ticket prices.

Trees and keys

Chuck Leavell has one of the best jobs in music. But the Rolling Stones keyboard player is 46 years old; his bandmates are well into their 50s. What happens when Mick and Keith finally put "Satisfaction" on the shelf?

Leavell's peers may end up trolling the backwaters of small venues and diminished expectations. But he'll join the ranks of the landed gentry. Leavell operates a tree farm and commercial hunting preserve on his Charlane Plantation, a 2,000-acre spread in Dry Branch, Ga. Right now Charlane functions as more of a refuge from the rigors of touring—"It can wear on you, even with big groups like the Stones"—but eventually it will become Leavell's second career.

Leavell farms loblolly, slash and longleaf pines on Charlane. Lately he's been pushing the hunting business. Charlane can put up 12 people in three separate buildings. A full day of quail hunting, including hunting licenses, guns, dogs (English setters and pointers) and home-cooked southern fare, goes for up to $600 a head.

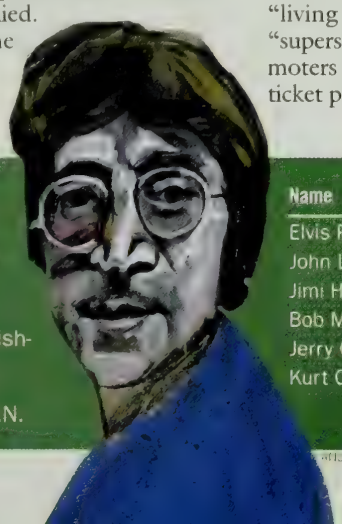
Charlane generated $350,000 for Leavell last year. That's not as much as he earns backing the Stones, but that's not the point. It's a safety net for when the music stops. "I'm not ready to hang up those rock 'n' roll shoes yet," Leavell says. "But if and when I do, I'll hang them up on one of the finest loblolly pines you ever saw." –Peter Newcomb

Dead men earning

ost pop music is ephemeral. The musicians at r ated a body of work that still makes millions of llars every year. David Pullman, whose Pullman oup has securitized over $100 million in music publish- assets, says the estates of other dead musicians note can expect similar returns as their catalogs rease in value. –P.N.

Name	1998 earnings*
Elvis Presley	$35 million
John Lennon	12 million
Jimi Hendrix	10 million
Bob Marley	9 million
Jerry Garcia	5 million
Kurt Cobain	3 million

*Forbes estimates



houghts on the business of life

The richest person in the world—in fact, all the riches in the world—couldn't provide you with anything like the endless, incredible loot available at your local library. You can measure the awareness, the breadth and the wisdom of a civilization, a nation, a people by the priority given to preserving these repositories of all that we are, all that we were, or will be. Our libraries are being eroded alarmingly by inflation. It behooves us—all of us—to stop the rot by the application of that prime preserver—money. **–Malcolm Forbes (1981)**

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The postman wants an autograph. The cab driver wants a picture. The waitress wants a handshake. Everyone wants a piece of you.
John Lennon

In America, the race goes to the loud, the solemn, the hustler. If you think you're a great writer, you must say that you are.
Gore Vidal

The nice thing about being a celebrity is that when you bore people, they think it's their fault.
Henry Kissinger

Fame like a drunkard consumes the house of the soul.
Malcolm Lowry

Fill an author with titanic fame and you do not make him titanic; you often merely burst him.
Frank Moore Colby

A legend is an old man with a cane known for what he used to do. I'm still doing it.
Miles Davis

What is popularly called fame is nothing but an empty name and a legacy from paganism.
Erasmus

It is a mark of many famous people that they cannot part with their brightest hour.
Lillian Hellman

A plague on eminence! I hardly dare cross the street anymore without a convoy, and I am stared at wherever I go like an idiot member of a royal family or an animal in a zoo; and zoo animals have been known to die from stares.
Igor Stravinsky

In the world of the celebrity, the hierarchy of publicity has replaced the hierarchy of descent and even of great wealth.
C. Wright Mills

Our aristocracy has largely passed from life into history; but our millionaires, the financiers, the successful pugilists and the film stars who constitute our modern galaxy and enjoy the same kind of privileges as did the outstanding figures of the seventeenth and eighteenth centuries—are all expected to lead model lives.
Winston Churchill

Now there is fame! Of all—hunger, misery, the incomprehension by the public—fame is by far the worst. It is the castigation of God by the artist.
Pablo Picasso

The modern world is not given to uncritical admiration. It expects its idols to have feet of clay, and can be reasonably sure that press and camera will report their exact dimensions.
Barbara Ward

To want fame is to prefer dying scorned than forgotten.
E.M. Cioran

The final test of fame is to have a crazy person imagine he is you.
Anonymous

A Text . . .

Where there is no vision, the people perish: but he that keepeth the law, happy is he.
–Proverbs 29:18

Sent in by J. Michael Robertson, Edmond, Okla. What's your favorite text? *Forbes Book of Quotations: Thoughts on the Business of Life* is given to senders of Bible texts used.

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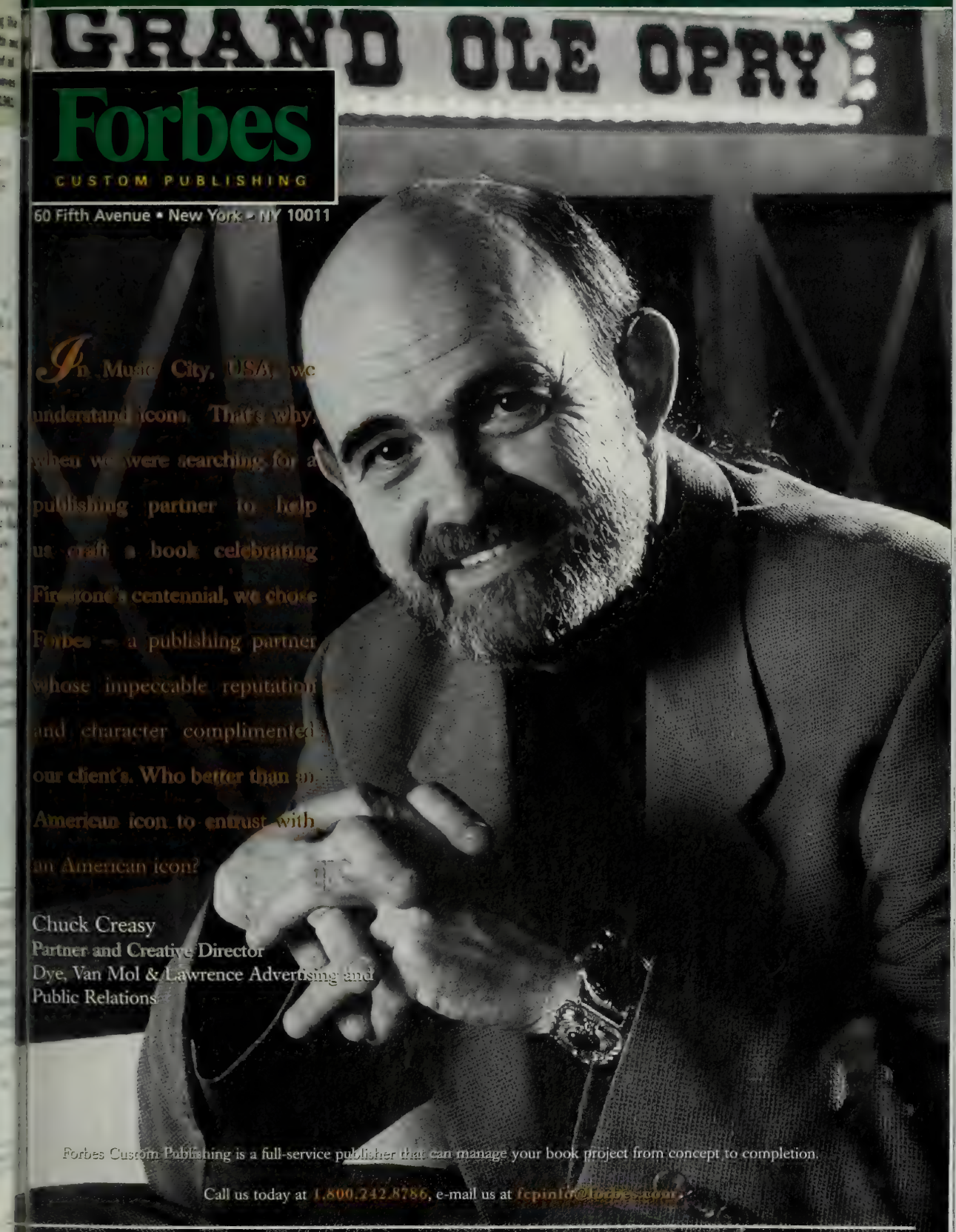

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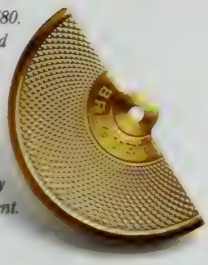

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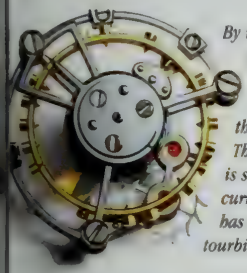

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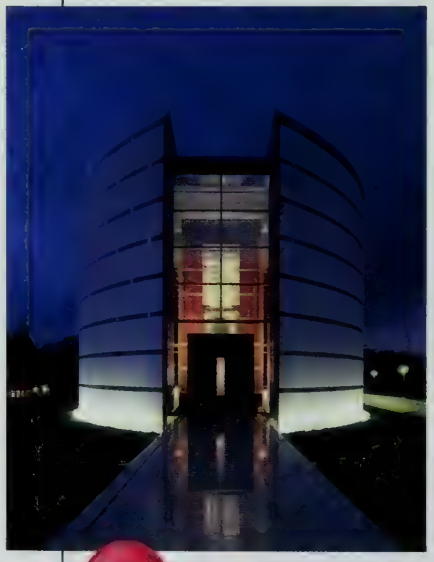

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"Fifty Percent of women say they would choose chocolate over sex."

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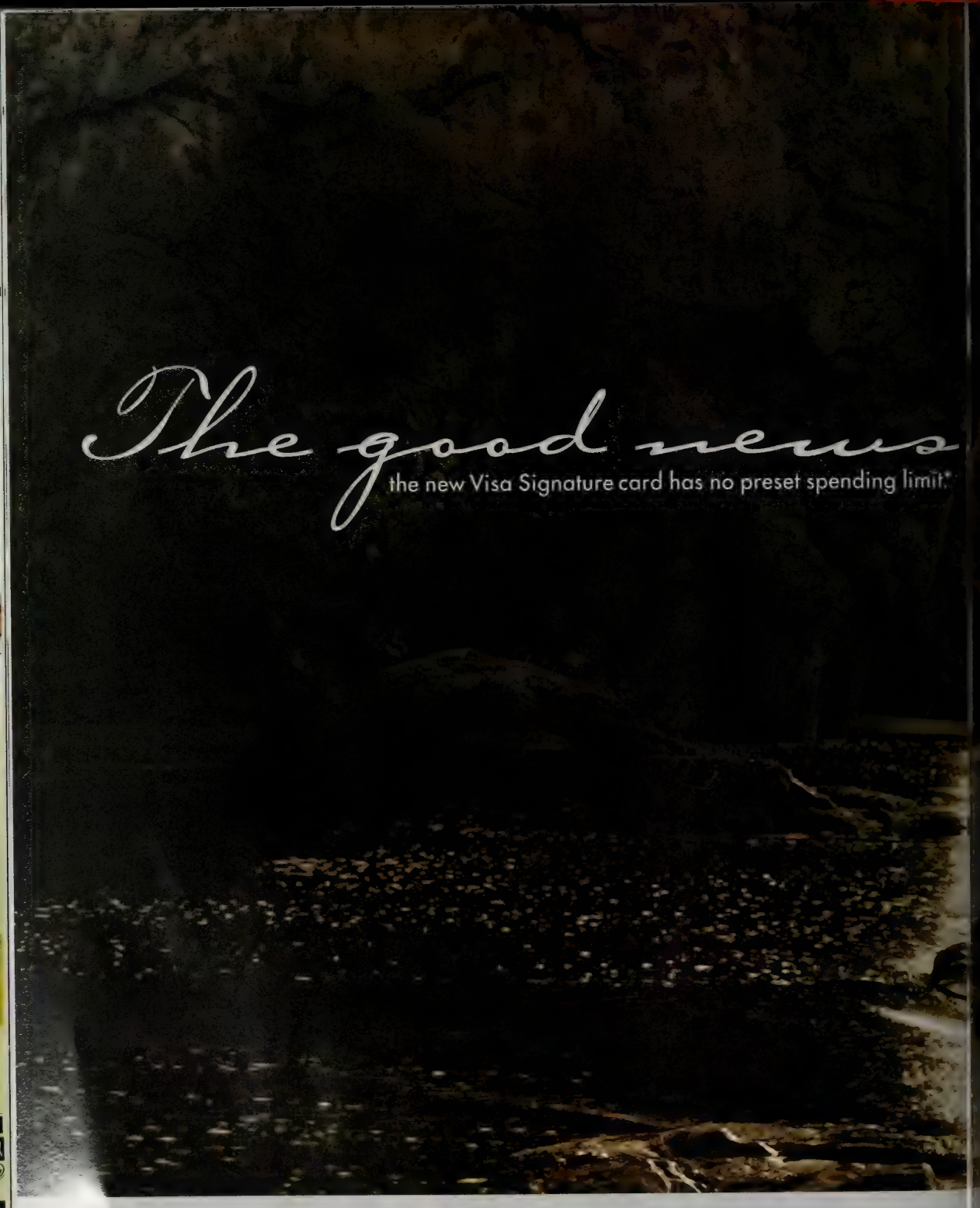

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All right, I give up—where (the hell) is the article on the fruitcake in your last issue? You put a picture of one on the cover, so I assume(d) there's an article on fruitcakes, but I'm darned if I can find it.

—B. BALDWIN
New York, New York

Keep looking!

I loved the article on the fruitcakes ["The Return of the Fruitcake"] in your winter issue, especially the marvelous anecdote about Henry Kissinger bringing one with him to China for his historic meeting with Chou En-Lai.

—C. BUCKLEY
Washington, DC

I was delighted to see in your November issue Charles Gaines's wonderful article about killing things in Argentina. There is nothing as relaxing as firing a shotgun until "your ears bleed," then repairing to a luxurious, well-stocked lodge and getting blotto with Argies. This, truly is, "The Good Life." Hip, hip!

—B. BLEDSLOE
Hobo Sound, Florida

Please cancel my subscription to your magazine. I am just not that interested in the Silicon Valley technology business. I don't want to sound like a Luddite or a trog, but there is just so much time available. I do, however, enjoy your quarterly lifestyle supplement, *American Legacy*.

—F. MCDONOGHUE
Pratt, Indiana

Thank you so very much for Jeffrey Turrentine's feature story, "Skipping: The Next Health Craze?" I, too, used to skip down sidewalks as a child. It wasn't until I was older, however, that I came to grasp its aerobic benefits. Here in eastern Oregon athletes go out in the morning for a 30- or 40-mile skip, and on a recent trip to New York City, I saw more than one person tripping down the avenues!

Thanks for getting the word out, Jeff!

—BUNNY LEFRANK
Hells Canyon, Oregon

P.S. I would like to see a profile of Buddy Ebsen.

So would we.

I have been reading your magazine since 1921, and it is as sharp and fresh as ever. How do you manage?

—EDWARD BLIMM
Nutchester, Pennsylvania

Editor's reply: I fire staff regularly, sometimes for no reason at all. Terror is a marvelous, often underutilized management tool. In fact, as soon as we close this issue, I will be firing everyone on the current staff.

I was keenly interested in Christopher Buckley's article, "Whither South African Grain Prices?" in the last issue of *Forbes FYI*. It was pretty good. But I was wondering: What font does Mr. Buckley use? It looks like a variation on ACaslonSemiboldItalic, then again it could be a new Glypha Light of some sort, no? Does Mr. Buckley prefer this? Does he have final say over what font is used in the magazine? Would he ever consider a font as bold as a Zapf Dingbat for one of his stories? Keep up the good work.

—FR. KEN BAPTISTA, SJ
Arizona

Mr. Buckley replies: ✹❑◆❑❍❖✻❑◆▲●❙ ✢❍❖✻ ❍ ●❑▼ ❑✻ ▼✻❍✻ ❑■ ❙❑◆❐ ✢❍■✻▲❑◆▼▼✢✻❐✻✹❐❍✻❐✻°▵

Our apologies for failing to adequately credit the masterpiec that adorned our holiday issue. It is from the Collin Street Bakery, in wh is, of course, the fruitcake capital o America, Corsicana, Texas.

Now that our child is three years o I want to dump my wife and get r self a younger one. Are there servi that supply "trophy" wives, and ca charge them to my credit card?

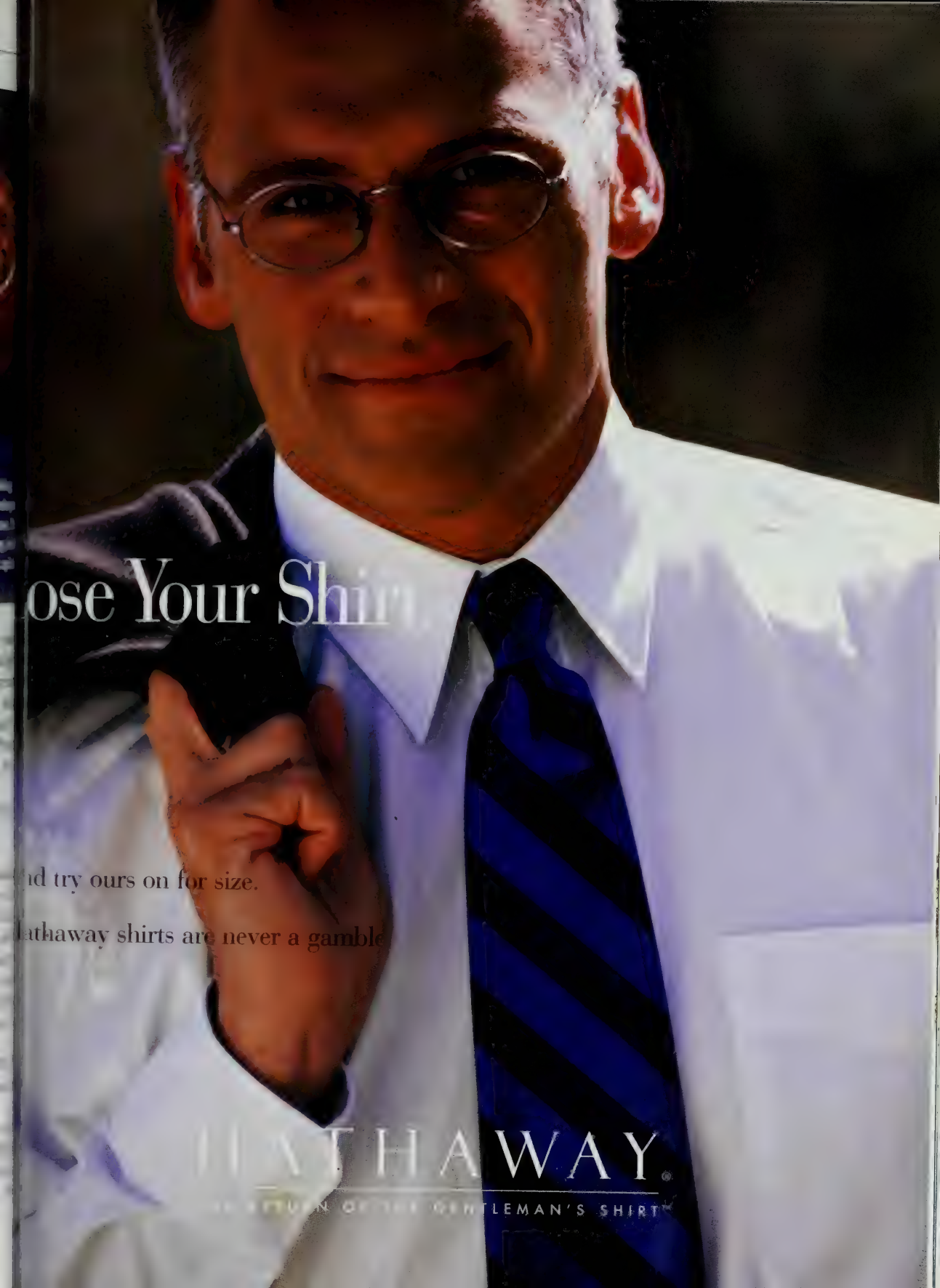
—R. PERELM
New York, New Y

Editor's note: Yes, they are listed e month in the Robb Report.

While I appreciated your asking to write an article about my favo restaurant, Locke-Ober, I think might have run the photo of me lar and not put the article next t reader's service card. You made look like Ed McMahon shilling American Family Publishers. I a former governor, you know.

—W. W
Boston, Massachu

Editor's reply: I couldn't agree with more, sir. Our apologies. Bob Forbes to blame. He's always doing this so thing, and it drives me fruity. Plea write again for us.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Swiss Tank

Forget plastic bands and digital faces—when the Swiss make a "sports watch" it's as posh and well-appointed as a luxury sedan. Jaeger-LeCoultre's Reverso Gran'Sport chronograph has a reversible face (the back shows the second and minute counters), and, though also available in solid 18k-gold, looks racecar-sleek in stainless steel for $12,200. ***By Jaeger-LeCoultre, (800) JLC-TIME.***

sness we have chosen." —THE GODFATHER, PART II

Capitalist Buell

Design and engineering visionary Erik Buell started building motorcycles in his Wisconsin garage in 1983. Now as chairman and chief technical officer of the Buell Motorcycle Company—acquired by Harley-Davidson in February 1998—he continues to build sport bikes that rival those from Germany, Italy and Japan. The company manufactures the motorcycles at its facility in East Troy, Wisconsin, then markets and distributes them through Harley's worldwide network.

At the top of 1999's list is the Lightning X1 sportster. The Buell-modified Harley-built V-Twin engine uses a digital fuel injection system that delivers a torquey 101 horsepower. The suspension is firm yet accommodating and braking is impressive with a massive front-brake rotor and six-piston caliper. Options include soft luggage, carbon fiber body components and polished aluminum wheels. *Price: $10,599. (800) 490-9635; www.buell.com.*

—David Stein

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This is Not Your Grandpa's Cadillac
(Grandpa would have *killed* for this Caddy)

People in the market for a high-end luxury car seem to end up debating two choices these days: the Mercedes E320 or the Lexus LS400. That's hard to understand when you consider that the Cadillac Seville STS is more comfortable than the Lexus, every bit as fast as the Mercedes and, at 50 grand, right in their price range. (Cadillac outsold both nationwide last year.) If you're shopping, don't consider your homework done until you've given this Caddy a serious look.

The 1999 STS is built around a 300 horsepower V8 engine that red lines at 6500 rpms, giving the car the brainpan-pinned-against-the-headrest acceleration of a Patriot missile. The powerplant doesn't require a tune-up until 100,000 miles, and in the unlikely event of total coolant loss, will revert to a "limp home" mode for 50 miles (at 50 miles an hour) with four cylinders firing while the other four effectively cool the engine by pumping air. *There's* Yankee ingenuity.

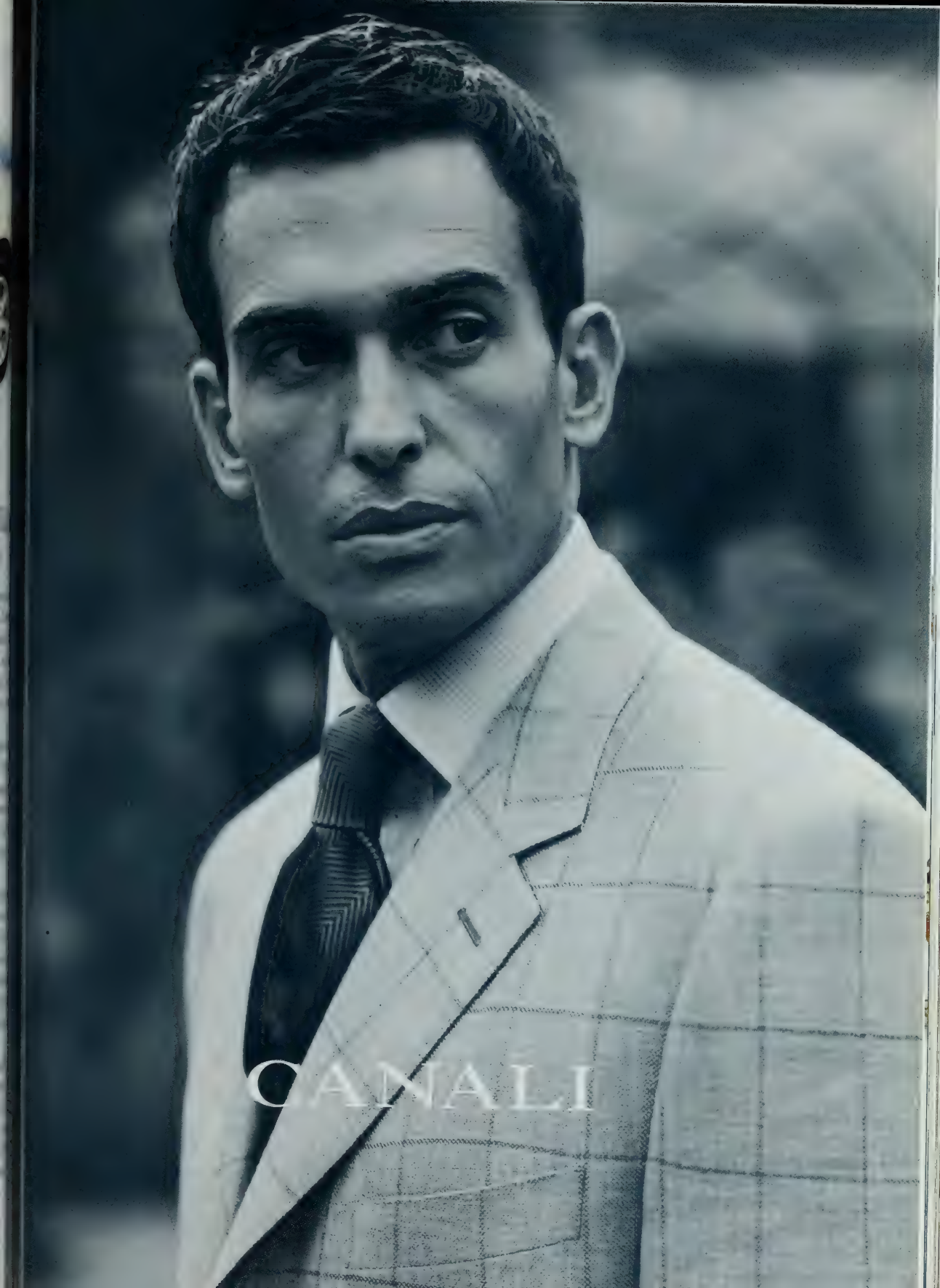
And, oh, the other gizmos! The driver's information system speaks French, Spanish, German, Japanese and English. The radio will not only give you the call letters of the station you're listening to but will tell you the format, the name of the song, and the artist playing. (The radio can also be programmed to interrupt a CD to bring you the latest weather or traffic reports.) The driver's seat conforms to (and remembers) any body type using a series of cleverly placed air bladders, and a massage unit comes as an option as well.

OnStar, GM's optional mobile communications system (a satellite link to the factory), notifies Cadillac the moment any of the car's airbags deploy and then sends help. The system will unlock the doors, via satellite, in the event you leave your keys dangling in the ignition. OnStar also provides a concierge via the STS car phone, who will provide a variety of services, from guiding you to the nearest ATM to making hotel reservations.

Ask Grandpa if he could do *that* in his old Brougham.

IT'S PICNIC TINES!

Richartz, the German pocket knife manufacturer, has solved the problem of which fork to use in the woods. Theirs. The high-tech "Structure" model (pictured here) is made from stainless steel and includes the usual array of useful blades and openers. But its clever aspect is that the fuselage splits in two and—*voilà!*, a civilized meal. Comes in a variety of finishes, $41-$63. *For the nearest retailer call (888) 350-8765.*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FYEye

...with a Hearty Brew

Now, what to put in your decanter? We asked *FYI* "Grape Juice" columnist, Tony Hendra, for a few recommendations:

Most wine isn't enhanced by decanting unless it has a sediment—e.g., very old vintages, port and unfiltered stuff like Chapoutier's splendiferous Rhônes. One exception: big, brawling beauties like young Barolos which benefit from a few hours in the cut glass. Oxygen teaches them manners.

Other suggestions for that eighteenth-century shaft-and-globe: Siberita, a voluptuous, beautifully restrained Palo Cortado (sherry) from Domecq. Or the fabulous new "single distillery" cognacs like Louis Royer's, made at specific distilleries with grapes from specific appellations. Try Des Saules (Borderies) or De L'Ecole (Petite Champagne). You haven't drunk cognac like this for 40 years. Looks great in cut-glass, too.

The Vessel Returns...

Given the decline of home bars and the rise of label-envy among faux wine-sophisticates, it's a wonder anyone still bothers with decanters. Yet the shaft-and-globe remains a popular fixture at proper tables. Indeed, Calvin Klein has three stylish glass decanters in his current Home collection. And last year more than a few distillers included decanters in their high-end gift packs to help boost holiday sales.

Decanters for wine, port and spirits came into fashion in the mid-1700s in London when bottles—and especially their labels—were considered unsightly at the table. Design requirements meant a practical shape for ease of pouring and good-quality, lead-crystal glass—light for wine, heavier for spirits. A wide base for use at sea. Such Georgian-era decanters (like the one shown here) were more functional than the long-necked styles of the Victorian era. They're also bit more expensive today. Laurie Leigh, an antique-glass dealer in Oxford, England, says Georgian decanters run $325 and up, versus $275 and under for Victorians. "And if you've got a matching pair, they're like gold dust."

For good decanters and the best advice: Laurie Leigh Antiques, 36 High Street, Oxford OX14AN England; 44-1865-244-197. —GEORGE HERRICK

FYEye

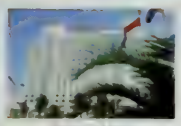
A Hotbed Of Jalapeño

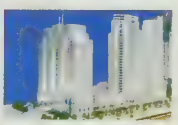
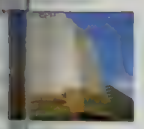
Regardless of what global warming has in store for us this summer, at least your gardening will be hot, hot, hot. These hybrid jalapeño seeds were developed by W. Atlee Burpee with "Biker Billy" Hufnagle, a Harley-riding vegetarian with his own cable-television cooking show. The seeds germinate in 66 days, producing the hottest, sweetest, most flavorful jalapeños you're likely to come across. ***From Burpee, 30 seeds, $2.95; (800) 888-1447.***

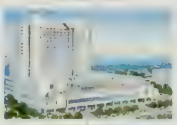
The Fedora Of Montecristi

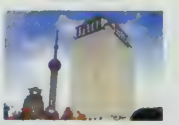
According to haberdasher historians, the hat recession hit in 1961 when JFK took his oath of office, hatless. But in *fin de siècle* America, the hat is back, along with Martinis and the three-button suit.

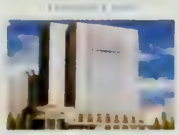
We recently came across this Borsalino Montecristi in New York. It's straw, but bears a smooth, parchment-like texture. On the skull, it's weightless, and perfectly shaded to reflect tropical sunshine. Borsalino uses a select straw hand-woven in the Ecuadoran village of Montecristi. It's then shipped to Italy to undergo a labor-intensive shaping process almost identical to the procedure used by Giuseppe Borsalino in his original workshop back in 1857. *From $600 to $900 at Borsalino, (212) 977-8371.* — JIM GIALAMA

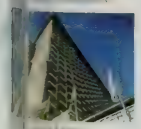










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Yachts that Bruce Farr designs have an uncanny habit of finishing first. Before that, however, they have one minor obstacle to surmount; they have to get around the course.

A course that could well circle the world. Just as his yachts are engineered to keep going under the most adverse conditions, so is the watch that Farr so much admires: his Rolex Submariner. Equipped with a triple-sealed screw-down winding crown, and individually pressure-tested to 1,000 feet, every single Submariner is a certified oceangoing chronometer. And the very epitome of reliability engineering.

YACHT DESIGNER BRUCE FARR ATTRIBUTES MUCH OF THE SUCCESS OF HIS DESIGNS TO "RELIABILITY ENGINEERING."

A PHILOSOPHY WE SHARE AT ROLEX.

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FYEye

COMFORT CLASS

A prescription for frequent fliers: Hermès knits up a soft, wool-jersey suit that feels like pajamas, but still means business. Wear it (or pack it) and look as good at the end of your trip as you did when you started. *Suit, $3,055, and Tanaka leather luggage at Hermès, (800) 441-4488.*

Eat My Contrail

As business continues its global march and commercial airline food its downward spiral, companies are increasingly buying their own aircraft. The newest, must-have biz jet is the Bombardier Global Express. With a top cruising speed of Mach .88 —just slightly below the speed of sound—it is the fastest "large" business bird in the skies. It also has the longest range of any corporate aircraft, able to travel from New York to Tokyo non-stop in under 14 hours on a single tank of fuel. With cabin measurements of 48' by 8'2", it'll hold up to 19 passengers comfortably. And the two BMW Rolls-Royce BR710-48-C2 turbofans generating 14,750 pounds of thrust at takeoff guarantee a real rush. "It's more like a fighter jet, and less like a bus when it climbs," says Bombardier President Mike Graff. Around $37 million, depending upon options. *For details: (800) 268-0030.*

Specs, To Your Specs

Selima Salaun, a Manhattan eyewear designer, crafts custom optics for those who've lost or broken a favorite pair of glasses, or who want to resurrect a style from the past. A New York lawyer commissioned the "Kerry" style (left). Another client asked her to recreate the glasses his father wore. She even offers a replica of the oversized shades Aristotle Onassis made famous. *Selima Optique at Barneys New York, or call (212) 343-9490.*

FYEye

Lord of the Landscape

A WORD TO COLLECTORS: Bart Elsbach's delicate brush strokes an sublime use of color are quickly establishing him as one of America premiere landscape artists. Pictured here: *Spring Treeline, Housaton ic Valley, 1998.* Available from The Ute Stebich Gallery, Lenox, M (413) 637-3566 or The OK Harris Gallery, New York, (212) 431-360

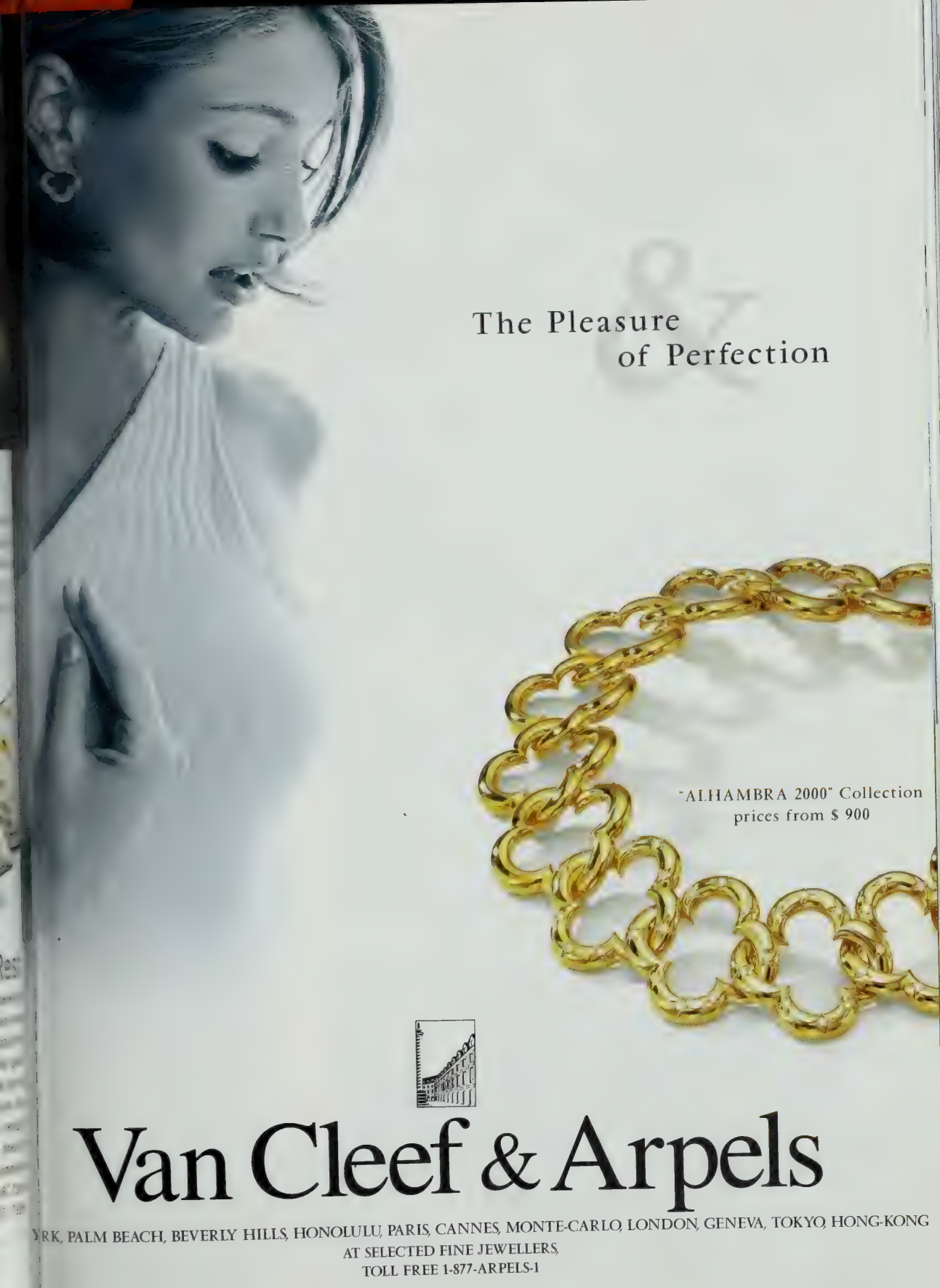
SINCE BEING IMPORTED EN masse in the 1980s, llamas have been guarding livestock, hauling mountain packs and caddying for golfers, but mainly these camel cousins have simply been pets. Many llamas can be a bit independent, however. With around 120,000 now in the U.S., that spells opportunity for Jim Logan, a breeder from Chattaroy, Washington. Over the last two years, Logan, 44, and his wife Amy have been touring the country imparting his "operant conditioning" method of llama training—similar to the technique used on marine animals at theme parks. Unlike correction-based training methods which punish an animal for wrong behavior, operant conditioning rewards the animal for good behavior. Using mainly tasty treats and loads of positive reinforcement,

THE LLAMA WHISPERER

Logan says he's gotten his charges "to do things I can't even get my dog to do. Shut the door, turn on lights..." Neat stuff, but the technique is also helpful for loading llamas into vehicles, and teaching them to sit for brushing and grooming. Logan, who suffers from retinitis pigmentosa, is in a race to impart his method on as many as possible before his eyesight goes. "This may be the last year we give workshops," he says. "But we're booked 'til the end of '99." *For info and a schedule of clinics: (888) 332-5425.*

The States Rest

Swan Magic's hand-embroidered pillow will occupy pride of place on your sof Emblazoned with retro postcard toten and embellished with venetian glass bu tons, the pillows depict not only state but cities, countries, regions and n tional parks. Readymade designs a about $98. If Swan Magic doesn't off the landscape you seek, commission a original. *Available at ABC Carpet New York, or call (800) 871-7926.*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FYEye

Clap Your Feet!

These ultracool new Splitframe Klops from K2 use a hybrid of the "clap skate" technology that caused such a fuss—and broke so many records—at the 1998 Winter Olympics in Nagano. Instead of a single steel frame attaching the wheels to the sole, SKs have two frames—one each mounted at the toe and heel—which overlap under the ball of the foot. The hinge-like design lets the feet flex more naturally, utilizing more of the leg muscles and propelling skaters forward...very fast. *Hitting sporting goods stores in March, $400; (800) 972-4063; www.k2skates.com.*

FOR THE WORLD-WARY

SO YOUR COMPANY IS RELOCATING you from Kansas to Mogadishu. Before you pack, consider an in-home security briefing from Pinkerton, tailored to whatever dicey region you're headed to. With 35 years of troubleshooting experience, Frank Johns, managing director for Pinkerton Global Intelligence Services, dispels inappropriate fears—and instills appropriate cautions.

Besides guarding against typical crimes and scams, Johns discusses how to fit in abroad. He advises becoming what Iranians call a "child of the neighborhood," being friendly with neighbors and respecting cultural characteristics while learning how to read the streets. "Acceptance in the local 'hood often offers the best protection," he says.

Risks vary wildly. "American kids can be unintentionally intrusive, so make sure yours understand what locals take seriously," says Johns. In Musli countries, for example, teac them not to walk in front people praying and not to thr parties or eat publicly durir the fasting hours of Ramada In some Asian countries, it offensive to pat children on t head. Parents, take note.

Americans abroad are mc likely to get hit by lightning th killed by a terrorist, but stre crime is often more commo The odds of being a victim a determined by behavior. "F example, if two people travel gether their odds are reduced better than 50%," says Johns

One-day security briefin for families or executiv run $1,500. *For info: (703) 5 6111; fjohns@pinkertons.co*

—Skip Kaltenheus

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nautica

Big Sky Bed & Board

Little ol' Big Timber has the finest place to eat in Montana, right there in the Grand Hotel. It's the first restaurant in the state to be listed in the *Wine Spectator*. Regularly.

Good restaurants require someone driven to demented attention to detail, and our host, Larry Edwards, and his excellent chef, Amy Smith, are just that. The lamb and beef are raised to Larry's specifications at local ranches.

Ranchers and celebrities eat at the Grand in harmony. The Hotel was built in 1890, when Big Timber was a railroad town and a major shipping point for cattle and sheep. It fell on hard times, and then a couple of owners ago renovations commenced which Larry has pretty much completed. There are ten suites upstairs ($60-$140 a night).

Big Timber has fine fishing and bird hunting nearby—just north of town and over the Yellowstone River there's a place where you can see well out on to the Great Plains and behind you are the magnificent Crazy Mountains, named for a madwoman who left a wagon train and lived there, feral, and was seen walking ridges just before dark. Or maybe it was her ghost.

The Grand is my favorite place in Montana for being with friends. Consider its history. In the '40s and '50s it was filled upstairs with sheepherders wintering over, in little canvas cubicles. The lovely carved backbar once had a vast mirror, but one evening there were words between the lady behind the bar and her hubby out front with this pool.... *The Grand Hotel, 139 McLeod, Big Timber, MT 59011; (406) 932-4459.*

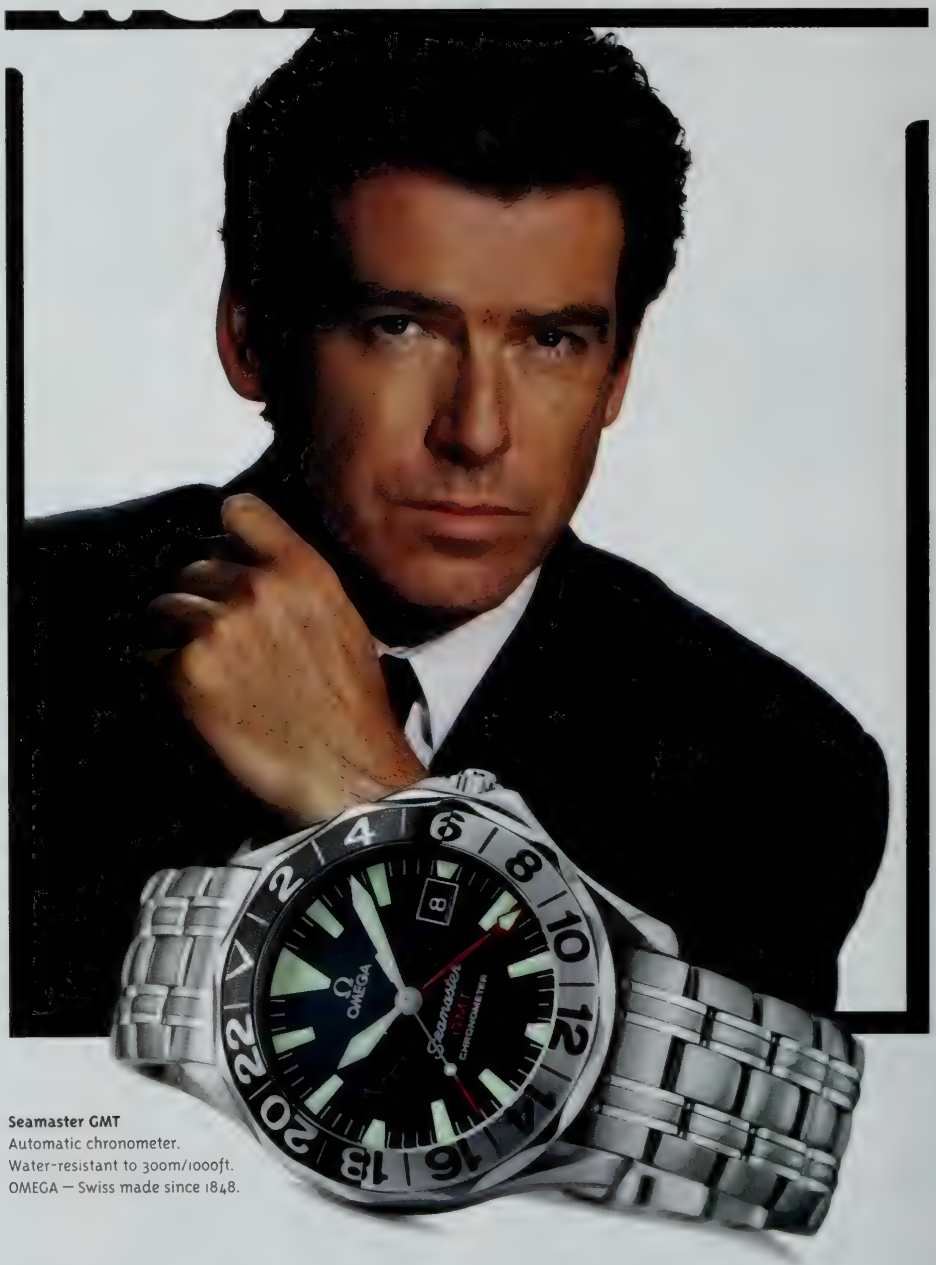
—Coyote Jack

FYEye

Tantalizingly Softcore

After 70 years of making sturdy Italian footwear, A. Testoni is softening up. The new "Ego" moccasin looks as pliable as a slipper, but it's got guts: a removable insole that conforms to your foot. Testoni says it's a "do-it-yourself custom fit"; we say all shoes should be this comfortable. $250. *At A. Testoni, New York, Beverly Hills and Honolulu. (877) TESTONI* •

Pierce Brosnan's Choice



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Out of the Rough

Despite the government's efforts to sink the Landmark Land Company, it rises once again. By James Y. Bartlett

COME BACK WITH ME NOW TO THE DAYS OF YESTERYEAR, OR AT LEAST BACK A couple decades, when golf was booming across the land, and the air was filled with the sound of bulldozers pushing dirt around to make new fairways. One of the largest fleets of dozers was owned by Landmark Land Co., which created for us a bevy of wonderful places in which to golf our ball. Remember La Quinta? PGA West? The Carmel Valley Ranch? Oak Tree Country Club? Kiawah Island's Ocean Course? The Palm Beach Polo Club?

These were but a few of the properties Landmark built in the 1970s and '80s. And then it all went ker-floop. Title to most of Landmark's golfing properties was held by one bank, the Oak Tree Savings & Loan in New Orleans. And we all know what happened to S&Ls at the end of the go-go '80s, don't we?

Landmark's glorious golf empire crumbled in the dust of Resolution Trust Corp. actions, bankruptcy filings and truckloads of legal wrangling. The properties were taken over and auctioned off, one by one. And so, as the sun sets slowly in the...

But wait! (Cue the trumpets.) With a hearty *Heigh-ho Silver!* Landmark rides again! Yes folks, they're baa-aaack!

As it turns out, the story of Landmark's rise, demise and rise again is not, as it first appears, the typical morality play of a bunch of overreaching, money-grubbing fat cats who got too big for their britches and bit the big one. Rather, it's a typical morality play about a sound-bitten government trying to fix a problem by leaving it in the hands of an incompetent, answerable-to-no-one bureaucracy, which proceeds to really mess it up. That the good guys win in the end is either pure serendipity or has something to do with cosmic balance. You pick.

Oak Tree was started by a couple of country golf pros, Ernie Vossler and Joe Walser, who together built the Oak Tree Country Club in Edmond, Oklahoma. They hired Pete Dye to build the course, using something like 8,000

railroad ties in the process, convinced some of their touring pro buddies to live there, and even talked the PGA of America into staging the '88 PGA Championship there.

Vossler and Walser were pretty savvy for golf professionals, but their smartest move was bringing in Gerald Barton and his Landmark Land Co. to provide financial backing. Landmark had been a real estate development firm for nearly a hundred years and in the '70s was controlled by Barton and his partners, the Reichmann brothers of Olympia & York, a Canadian real estate conglomerate.

With Vossler and Walser handling golf development and operations, Barton finding and financing new projects, Landmark Land grew like poa annua. As Barton says today, paraphrasing Topsy from *Uncle Tom's Cabin,* "She just growed." The company moved from Oklahoma to Carmel, California, and began buying and building golf resorts and communities. Landmark acquired the famed La Quinta Hotel in the Palm Springs desert and quickly expanded its franchise, building fabulous golf courses and even more fabulous gated communities to go with them. Pete Dye and his railroad ties were called on frequently by Landmark Land: He built La Quinta's Mountain Course and a few years later one of the *pièces de résistance* of target golf, the Stadium Course at PGA West.

Landmark Land also developed the Carmel Valley Ranch in the hills above Carmel, as well as Mission Hills in Rancho Mirage, and the Moreno Valley and Oak Valley communities in California. Then it moved east, developing the Palm

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Landmark Land was hit with the equivalent of a quadruple bogey in a string of birdies. The government simply changed all the rules.

Beach Polo and Country Club in tony West Palm Beach, Florida, and acquiring the resort amenities at the Kiawah Island resort outside Charleston, South Carolina. Once again, Vossler and Walser pulled some kind of magic string at PGA of America headquarters, and got that organization to grant the 1991 Ryder Cup Matches to Kiawah Island. Somehow, Landmark Land was able to conceive, design and build the Ocean Course at Kiawah in less than 24 months, just in time to stage the now-famous "War by the Shore."

But by the time that exciting tournament was played, the bottom had already dropped out on Landmark Land Co. Its prime lender and subsidiary, Oak Tree Savings, was in deep doo-doo.

Back in 1982, government banking regulators had approached Barton and Landmark Land, and asked if they would be willing to take over ownership of a then-struggling S&L in New Orleans called Dixie Savings and Loan. Barton, who calls himself a "New Deal Democrat who trusted the government when they told me something," negotiated a contract for Landmark to take over the bank and wrote off its $150 million in negative net worth over 40 years.

It was obviously a good deal for Landmark, which could get financing for its various real estate projects at slightly less than market prices. Regulators later asked Landmark to shift all of its real estate holdings, at the time totaling some $270 million, to the newly renamed Oak Tree Savings Bank. In 1986, the government asked Oak Tree to take over another bankrupt thrift in Louisiana, and by 198 Oak Tree was financing some $1 bi lion in real estate for its own projec and for others.

At the end of 1988, Oak Tree Savin Bank was considered one of the mo solvent and successful banks in th nation. It boasted capital equal more than 35 percent of its asse compared to the national median o percent. It closed the year with $ million in profits. It was the large thrift in the state of Louisiana.

But in 1989, the U.S. governme hit Landmark Land with the equi alent of a quadruple bogey in a stri of birdies. Simply, the governme changed all the rules. With headlin screaming about the "Keating Five a group of prominent U.S. Senato accused of cozying up to a shar banker, and other thrifts around t country running out of cash, Co gress and President Bush pass the Financial Institutions Refor Recovery and Enforcement A (FIRREA). FIRREA changed a lot

Black tie is optional but a 300-horsepower V-8 is standard in the world's most powerful luxury SUV.* There's room for seven in three rows of leather-tr

les, including those allowing thrifts invest in real estate, and it effectively reneged on the contracts banking regulators had entered into with nks like Oak Tree to take over ling institutions. And, in the tenor the times, regulators from the ffice of Thrift Supervisors and the solution Trust Corp. were in no ood to cut anyone any slack: FIREA made criminal practices that d once been standard.

Gerald Barton, the New Deal Demrat, tried to play the new game th the new rules. Realizing he had unload his vast array of profitable l estate holdings, he first cut a deal th a large California developer to l most of Landmark Land's golf d resort properties for $967 million. gulators turned the deal down, on basis that, despite receiving $200 llion in cash, Oak Tree would still ry a mortgage for the remainr, albeit secured by the underlying perties. Barton then went out and nd a Japanese securities firm (these were the days when the Japanese still had cash to buy things) which offered $739 million for the resort portfolio. The government pooh-bahs sat on the deal for almost a year, refusing to approve or deny it. As a result, the deal eventually collapsed.

On September 29, 1991, German Bernhard Langer just missed a six-footer on the 18th green, and the joyous American Ryder Cup team frolicked in the surf of Kiawah Island with their newly won hardware. A few days later, Barton met with OTS regulators who told him they intended to put his bank into conservatorship.

Instead, on October 11, Barton put most of Oak Tree's resort properties into Chapter 11 bankruptcy to try and keep them out of federal hands. That sort of ticked off the feds, who hit Barton and three of his directors with fines of $1 million each, froze their assets, removed them as directors of Oak Tree and assessed the company fines of $500,000 a day until they dismissed the bankruptcy proceedings. It's not nice to fool with Uncle Sam.

The government took over Oak Tree Savings Bank and the Resolution Trust Corporation eventually sold off all the resort properties. By September of 1993, the RTC had reportedly grossed about $440 million in sales. That's $527 million less than Barton's first deal, and $299 million less than his second would have made. You and I ate the difference.

"I had all my own personal assets tied up with Landmark Land," Barton recalls somewhat ruefully. "I went from having $100 million to being broke."

Down, but not out. In 1993, he formed a new company, called Landmark National. In another year or two, he lined up some financial muscle on Wall Street. "I still had my reputation and Landmark's reputation," Barton says. "And most of my team seemed eager to do it all over again."

One of the first deals was with Texas Senator Lloyd Bentsen's fam-

ily, which had some 2,000 acres of land on South Padre Island. Landmark National's South Padre Island Golf Club opened in the spring of 1997. It will eventually include some 2,000 homes around the oceanfront track.

The Oaks in Pass Christian, Mississippi, in the gaming-driven Biloxi area, opened last May: It's an upscale daily fee course designed and built in-house by Landmark National's growing staff.

BUT THAT'S JUST THE BEGINNING:

- Barton arranged another deal for a golf development now underway in Houston, with a Greg Norman-designed course, to open in September.
- In L.A.'s Simi Valley, a Japanese company asked Barton to develop what he calls "the best site for golf I've seen in the United States." There will be two Pete Dye-designed courses, open to the public, as well as real estate in two deep canyons. Ground is breaking this spring.
- The government of Ireland held an international competition among a number of golf development companies, which Landmark National won. The prize? A piece of land along the ocean in County Clare between Ballybunion and Lahinch, with multiple oceanfront hole locations amid 90-foot-high dunes. Greg Norman will design the course, and for one of the few times in his life was rendered speechless when asked what he thought about the site.
- Norman is also designing the Landmark course to come in Prince Georges County, Maryland. Owned by a Saudi, the land will soon be a daily-fee course for golfers in the Washington-Baltimore corridor.

"We don't want to outrun our capabilities," Barton says. "There are lot of pretty good golf courses o there...if we can't build somethin excellent, we're not interested."

Barton is so charged up these day

The RTC grossed about $440 million in sales. That's $527 million less than Barton's first deal and $299 million less than his second. You and I ate the difference.

he almost can forget the bitter pa Or the almost-bitter past. In 199 a federal court agreed with Landma Land that the federal governmer in the person of the Office of Thr Supervisors and the RTC, reneg on its contracts with Oak Tree Savin Bank. Later this year, the lawye will face off yet again on the subje of damages.

But Barton doesn't really care if gets his lost millions back. The bu dozers have fired up again, and al right with the world. •

1764 - Catherine the Great, Casanova and fine cigars.

First Encounters by Davidoff

Catherine appeared at the ball disguised as a simple woman solely to learn the secrets of those in her court. Casanova was there that night on his usual quest. But when recognition occurred, Casanova, intrigued with Catherine's cunning abilities, decided this was a woman worthy of intellectual debate.

And so began the competition over who had had the most lovers. Hours and many good cigars later, a man usually guilty of patronizing women, was finally impressed by one.

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Meltdown

This candy bar could save your life. Are we running out of them?

By Lyric Wallwork Winik

For Columbus. His greatest transgression may not have been spreading pestilence or colonialism across the Caribbean, but rather initiating the global spread of chocolate. For now, almost 500 years after the infamous explorer let the extract of the cocoa bean pass his lips (he and his crew actually found the cold, bitter and greasy Aztec beverage quite distasteful), the world may be in danger of running out of the beatific bean. Cacao trees, the source of delicacies from Snickers to Chambourd-laced truffles, are falling prey to diseases and insects, while the tropical rainforest, the cacao tree's favorite habitat, is dwindling. All of which, according to formidable scientific minds and cocoa bean experts, spells trouble for chocolate.

To be sure, Godiva is still filling its gold boxes, M&Ms and Hershey bars will line supermarket checkout aisles, and half of Florida isn't trying to cultivate the tropic-loving cacao tree in the backyard. But when *The New York Times* headlined, "Chocoholics Take Note: Beloved Bean in Peril," the Chocolate Manufacturers Association responded with this rather strained semantic offering: "cocoa bean supply is expected to increase steadily, but may not keep pace with demand." The American Cocoa Research Institute put it more bluntly, saying, "We're running out of places in the world" to plant cocoa, and "Nobody wants to lose chocolate."

That last utterance may be a bit of an understatement. Chocolate has been called "the Prozac of plants" because mere consumption can trigger a rush of endorphins and seratonin in the brain. Eighteenth-century French physicians prescribed it to remedy broken hearts and chronic illnesses. And modern doctors may soon recommend Hershey bars for the health conscious. After studying 7,841 male Harvard graduates, the esteemed Harvard School of Public Health has determined that chocolate candy eaters live nearly one year longer than those who abstain. Harvard men who ate one to three candy bars a month had a 36% lower risk of death than their heretofore virtuous colleagues. (But guys, at three or more bars per week, death rates only dropped by 16%.) On top of taste, texture and pleasure, chocolate apparently also has the same potent antioxidants as red wine. But if you thought that you could now have your chocolate, and eat it too, well into the next millennium, think again. The degradation of the cacao tree continues—what some might consider to be Montezuma's second and most successful revenge.

Before Columbus, Montezuma and his Aztecs believed that chocolate supplied wisdom and energy and was an aphrodisiac. They served it as a cool, frothy liquid—only in the nineteenth century did Europeans discover "eating chocolate"—and according to *The Ultimate Encyclopedia of Chocolate* (Smithmark Publishers), "Emperor Montezuma was reputed to go through 50 flagons of

chocolate a day, always fortifying himself with a cup before entering the harem." The Aztecs fed their warriors chocolate before battle and used cocoa beans as currency. The *UEC* states that, during the Spanish conquest of Mexico, ten cocoa beans could secure the services of a prostitute, one hundred the outright purchase of a slave. (Today, it takes at least 64 beans to make a pound of milk chocolate, 192 beans for dark chocolate.)

The conquering Spanish adopted the Aztec love of chocolate and went a step further. They allowed women to partake of the hallowed drink, which the Spanish prepared with sugar and spices, as opposed to the Aztec preference for enhancing it with black pepper and hot chili. Women, some might argue, have never been the same since. Early on, they discovered a particular affinity for chocolate. The seventeenth-century British adventurer Thomas Gage recounted at length how the wealthy women of Chiapa, Mexico, could not endure a full mass and communion without a bolstering cup of hot chocolate. Chiapa's incensed bishop subsequently forbade drinking during services under the penalty of excommunication, prompting gallant men to draw swords against any priest who attempted to forcibly separate a woman from her chocolate. Then, the Chiapan battle over the cocoa bean took a particularly dark turn. The bishop refused to back down, and the local ladies boycotted his mass. Whereupon, the bishop sickened and died a particularly gruesome death. Gage duly reported that the suspected culprit was a gentlewoman who had persuaded a page to serve the bishop a cup of poisoned chocolate.

Nevertheless, uproar does not generally accompany chocolate. (Although it should be noted that the tiny Caribbean island of Grenada, subject of a 1983 U.S. invasion, is a leading producer of cocoa beans. After years of Hershey bars in their field rations, our military strategists may have been worried about more than an airst
and some medical students fall
into Soviet hands.) But grand strat
and geopolitics aside—though
does wonder whether the tantaliz
prospect of fertile new cacao tree far
could hasten rapprochement w
Cuba—chocolate consumption is
ing. Europeans top the list, but Am
icans down nearly 12 pounds per per
a year. And, harkening back to Chia
U.S. women account for an ov
whelming number of chocolate sa
In *Why Women Need Chocolate* (H
erion), nutritionist Debra Waterho
states, "Fifty percent of women
they would choose chocolate over s

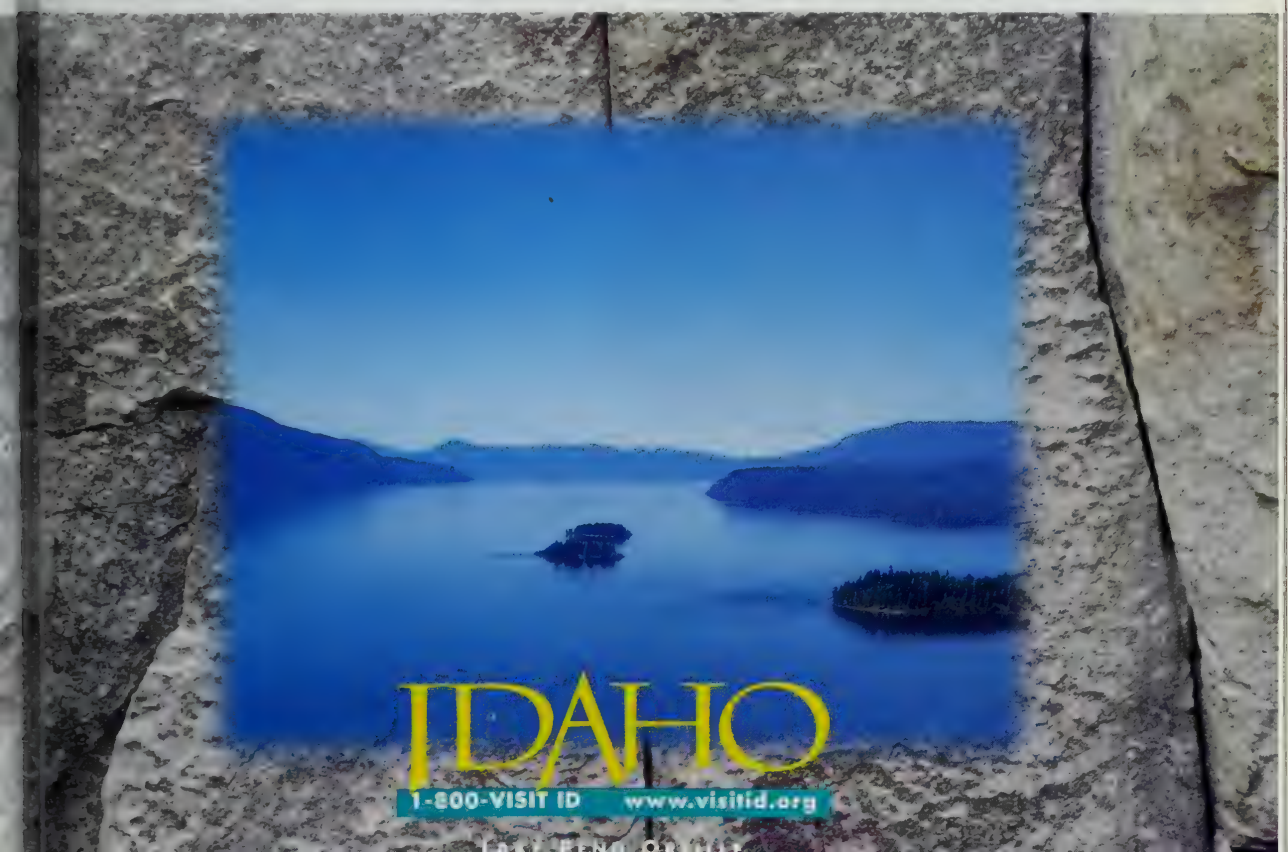
Indeed, after a quick look at
numbers, you might want to cho
M&M futures over Microsoft.
ter all, what is a little Y2K softw
glitch—especially when Januar
2000 is a holiday anyway—compa
to the prospect of millions of
enous Europeans, legions of dis
pointed trick-or-treaters, and
heretofore unknown effects of ch

deprivation on your boss or your wi[fe]. (For the record, in 1997, cocoa fu[tures] rose 20% per ton. And cocoa ex[perts] say the long-term trend is up.) Next, the prudent Swiss, who co[n]sume over 20 pounds of chocolate pe[r] person per annum, may decide to le[ave] the world's supply of Toblerone locked up at home.

Perhaps as a harbinger of things to co[me], top chocolate manufacturers, in[clu]ding Hershey, M&M Mars, Ne[st]le, and Godiva, are hunkering do[wn]. They, firmly but sweetly, are re[fer]ring all inquiries about any cocoa sh[or]tage to the Chocolate Manufacturers Association, where Senior Vice President Susan Snyder Smith promises that we will not have to face the twenty-first century *sans* chocolate. The worst-case scenario, according to Smith, is a reduction in "the amount of chocolate in a product," which nevertheless, for the true connoisseur, is rather like adding a bit of shiny black filler to stretch out the cigar. (Indeed, in 1990, an assortment of Brits actually started a Chocolate Society, devoted in part to ending the dumbing-down of British chocolate with vegetable fats.) But, Smith adds brightly, there is no talk of chocolate substitutes, and, when news of a shortage hit, "no one even mentioned carob," the waxy stuff found in trail mix and health food stores. "People who like chocolate know that nothing takes its place," she explains.

For chocolate aficionados, denial also helps. Fran Bigelow, of Fran's Chocolates, a gourmet chocolatier in Seattle, says she "worries about a chocolate shortage, but then I think that I use only a small percentage of the world's high-end cocoa beans." Bigelow holds out hope that "more mass grades of beans would be affected first." In San Francisco, master chocolatier Joseph Schmidt of Joseph Schmidt Confections says he has stopped listening to cocoa bean alarmists. Speaking with the serotonin-laced confidence of someone who "plays" with what the Aztecs considered the food of the gods, he says, "The Third World has always supplied the rest of the world with whatever it needs. Once countries hear there may be a cocoa bean shortage, everyone will start growing it like crazy." After all, Schmidt notes, "chocolate is an intensely satisfying habit that is also legal." (One has visions of flack-jacketed Drug Enforcement agents hacking through the back country of certain South American nations, with bonbons and cocoa pods in hand, on a "crop substitution" mission.) Still, if you (or someone you love) prize Jamaican pods the way certain cigar aficionados salivate over hand-rolled Cubans, you may want to eat up come the millennium. Any shortfall will hit before 2010, and, unlike fine wine, fine chocolate has a very limited life span.

And how best to enjoy the chocolate that remains? Well, according to many chocolatiers, human beings are born ready to appreciate chocolate.



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Paul Bomba, senior manager of s
sory and texture research and stud
at Hershey's, says that today's cho
philes are the culmination of mill
niums of intricate evolution, fr
dark caves and prehistoric oc
"Human beings," Bomba sta
"have evolved to like complex
vors." Indeed, proper choco
tasting is serious business, start
with examining the texture
savoring the aroma (although, Bo
notes, "Most chocolate proba
doesn't get too much inspect
between the wrapper and y
mouth"). And the American cho
late palate is slowly becoming m
sophisticated. Milk chocolate is
dark is in. "Chocolate snobs bel
that dark is the pure chocolate ex
rience," explains Godiva Senior V
President Gene Dunkin. Sweetn
is also declining. But Europe ha
ready launched the next choco
wave: producing chocolates from
dividual regional cocoas, such
Jamaican or Indonesian, as we
bars that approach 90% cocoa so
"The taste is a lot stronger. S
like it, others think it's inedib
says Dunkin, who admits that c
he could satisfy a chocolate cra
"with a Hershey bar."

"You should eat what you l
even if it's a candy bar," expl
Joseph Schmidt. But Schmidt
lieves if more Americans eat h
quality chocolate, that alone c
solve any shortage crisis. "One g
piece," he states, hoping to reas
hardened chocophiles, "is better
eating a mediocre pound."

Still, if chocolate choices,
sumption instructions and shor
predictions only leave you feeli
bit confectionally challenged,
heart. Deep in Hershey, Penn
vania, Paul Bomba and his t
stay up nights "tracking ingredi
and checking product formulat
to make sure that, cocoa shorta
no, "every Hershey bar tastes jus
way you remember them"—
erica's version, perhaps, of Pro
famous madeleine. •

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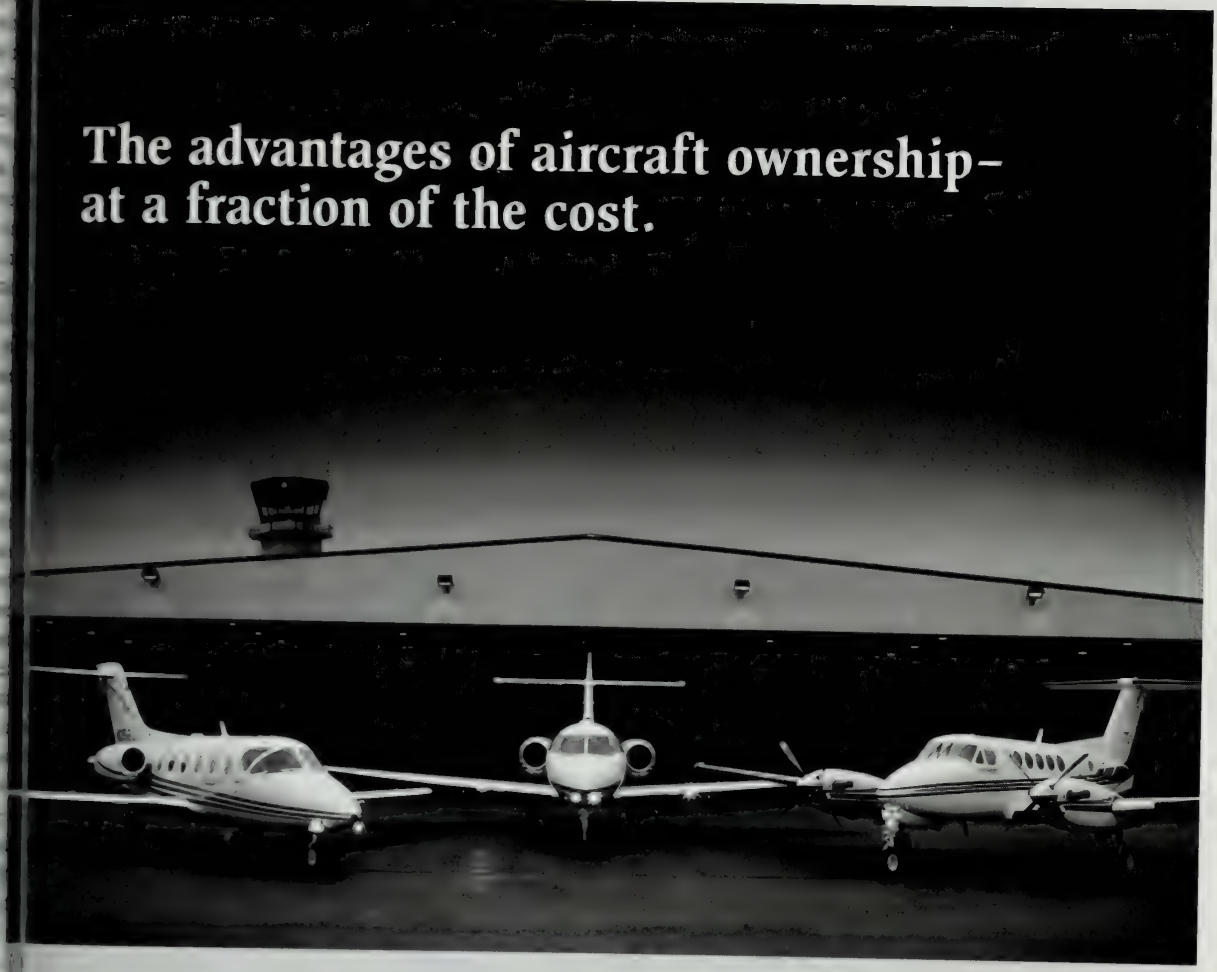

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[1]Jeanette Takamura, Asst. Secretary for Aging, Dept. of Health and Human Services, before the Senate Special Committee on Agi February 18, 1998. [2]*The Wall Street Journal,* December 3, 1998. [3]*Guide to Choosing a Nursing Home,* published by the Health C Financing Administration—Medicare and Medicaid, U.S. Dept. of Health and Human Services, April 1996. ©1999 The Prudential Insura Company of America, 751 Broad Street, Newark, NJ 07102. Securities products and services are offered through Prudential Securit 199 Water Street, New York, NY 10292 (member SIPC), and Pruco Securities Corporation, 751 Broad Street, Newark, NJ 07102, b subsidiaries of Prudential. Since neither Prudential nor its representatives can give legal or accounting advice, you should consult with y own personal tax advisor in regard to your particular situation. IFS-1999-A036303

Camp Jog-a-Lot

If your morning jog is becoming the Bataan Death March, it's time to run—don't walk—to running camp.

By Bob Cooper

ROLLING PAST THE POOL UPON ARRIVING AT SQUAW VALLEY LODGE, A erra ski resort near Lake Tahoe, you wonder why you're about to waste rd-earned money and time on a running camp. You could be relaxing with ose heavenly bodies at poolside. But nooooo—now you'll be gagging on e dust of two-legged gazelles who smirk at your nine-minute miles, or rse, spending the week in exercise physiology lectures.

Your funk eases after discovering that your suite has a queen bed and a view 8,900-foot Squaw Peak. And host Jeff Galloway greets you at dinner e you're one of his '72 Olympic team buddies. The 20 other campers who ned up for this weeklong "Fitness Vacation" are just as friendly, and unlike alloway, they don't have that ungry" world-class look. Some en appear well-fed, which n't change during this camp th its three ample meals a day. "Classes" begin early the next rning. Setting the pattern the week, a group run and eakfast are followed by two urs of give-and-take with fit- ss experts on a courtyard lawn. he unifying theme is moder- on and injury prevention. achieve injury-free running, the camp profs, you have to change your regimen.

First, you need to run every other day. "The muscles, bones, tendons and aments require at least 48 hours to fully recover from a pounding activity like ning," Galloway explains, "so daily running eventually produces injuries." tting theory to the test, campers only run on alternate days, with group hikes bike rides (two excellent non-pounding activities) on non-running days.

This is sounding a little too cushy until Galloway talks about cranking ngs up. Instead of a half-hour daily run, he suggests trying one hour every her day and periodic speed or hill-climb sessions for more experienced nners. Adds Joe Henderson, co-author of *Running Injury-Free* (Rodale ess), "There's value in running fast in small doses beyond winning races. u'll feel stronger and stay healthier." For runners stuck at the same train- g pace, he advocates a 1:1:1 formula—one mile, once a week, at one minute ter than your usual pace. Once that feels comfortable, you can ease into re ambitious speed work, keeping in mind Henderson's warning that

"The walking break is the running revelation of the decade," says fitness guru Joe Henderson. "It does so much to hasten recovery."

nearly all running injuries result from "too fast, too far or too often."

Galloway and Henderson also rave about the value of walking. "Sports scientists suggest taking walking breaks of one to five minutes after every 10 to 30 minutes of running," says Henderson. Galloway encourages even more gear-shifting for novices: a two-minute walk after every two minutes of running. "The walking break is the running revelation of the decade," says Henderson. "It does so much to hasten recovery."

Skipping days of running? Walking breaks? Such heresy, yet it makes sense. The ideas sink in during afternoon "pool training" sessions, which consist of reclining on a chaise longue behind your Oakleys while non-campers in bikinis derail your train of thought to less vigorous pursuits.

Next at the lectern is Bob Anderson, the stretching guru. Rather than try to turn campers into human pretzels, he takes a more realistic tack. "It's more important to be injury-free and pain-free than to touch your toes," he tells the group, which proceeds to try some simple stretches. "Your main goal should be to maintain whatever flexibility you have, because if you don't stretch, it will deteriorate."

He proceeds to bust several stretching myths. *When* you stretch doesn't matter. Anderson suggests getting limber at night in front of the TV because you're killing time anyway. There's no ideal amount of time to hold a stretch: The feeling of the stretch (when the stretched muscle relaxes) will tell you when to stop. Flexibility is largely genetic; you can stretch for hours and never be as flexible as your beer-bellied neighbor. And the best stretch (if he could choose one) is the squat; its reputation as a knee-destroyer is disproven by the 70-year-olds who squat all their lives in countries without toilets.

The trail runs are cakewalks. Campers bunch up according to their chosen pace—most walking the climbs—and it's leisurely enough to let you admire the views. Running alone in the woods has its rewards, but a dialogue with new acquaintances always beats a monologue. Each day you pile into a van (or the ski-lift cable car) to head to different trails, and you get to know campers in a way that wouldn't have been possible across a conference table. Galloway's camps attract more single women than men, though the idea of a long-distance (running) romance doesn't excite you as much as the miles of advice you get for your regimen.

During a clinic on "form," Galloway introduces cues like "puppet-on-a-string" (to help you visualize running upright) and "light-on-your feet" (to keep you from running too heavily and fatiguing your muscles). As further reinforcement, campers are videotaped outside the lodge each morning—running uphill, downhill, fast and slow—for later gait analysis in a screening room. Galloway also meets with campers in small groups to plot customized training schedules.

An "endurance-training" talk dwells on the fat-burning and stress-release value of weekly run-walks of an hour or more. You learn in a "mental training" session how to stay motivated. A nutrition discussion focuses on "grazing": low-fat snacking throughout the day in lieu of large meals to enhance fat burning. You pick up a few upper-body "postural" lifts—such as sit-ups or running with dumbbells—to strengthen back and abdominal muscles. And you find out how to select shoes compatible to the way your feet function.

Then it's time to run on home. You leave with a list of training resolutions, three invitations to run with fellow campers around the country and a renewed love of the sport.

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A Run-Run-Run-Run-Run-Runaway

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Jeff Galloway's Fitness Vacations: Squaw Valley/Lake Tahoe, CA, July 9-16 and July 16-18; Canterbury Trails/England, September; Athens Marathon Camp, Greece, October. Directed by former Olympian Jeff Galloway. $325 and up. (800) 200-2771, ext. 10.

Nike Running Camps: Asheville, NC, June 12-15, $395; June 12-18, $635; Stratton, VT, June 26-29, $395; San Rafael, CA, July 8-11, $495; Tabernash, CO, September 16-19, price TBA. All are directed by prominent coaches: Roy Benson or Priscilla Welch. (800) NIKE-CAMP.

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Maine Running Camps: Bar Harbor/Acadia National Park, ME, June 20-July 24. Five one-week sessions; bike touring and kayak instruction available; camp guests include former Olympians Bill Rodgers and Anne Audain. Comfortable housing. $650. Andy Palmer, (770) 455-6086.

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Bill Samuels, Jr.
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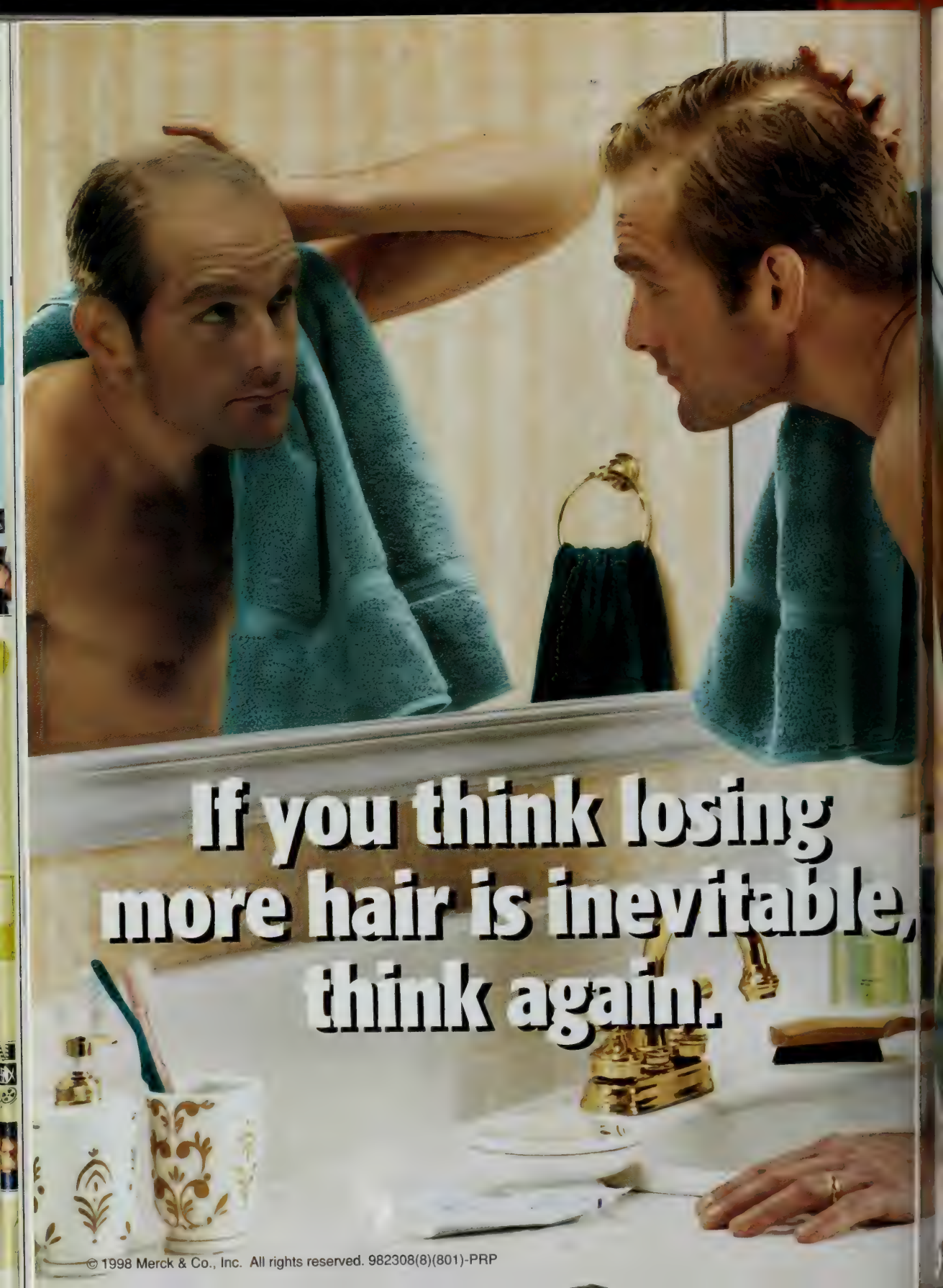

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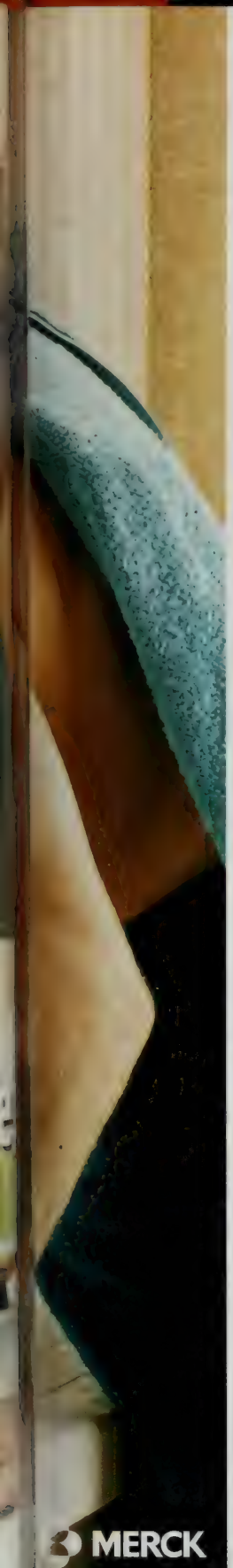

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*Based on vertex studies at 24 months of men 18 to 41 with mild to moderate hair loss.

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Like all prescription products, PROPECIA may cause side effects. A very small number of men experienced certain side effects, such as: less desire for sex, difficulty in achieving an erection, and a decrease in the amount of semen. Each of these side effects occurred in less than 2% of men. These side effects were reversible and went away in men who stopped taking PROPECIA.

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Please read this leaflet before you start taking PROPECIA. Also, read the information included with PROPECIA each time you renew your prescription, just in case anything has changed. Remember, this leaflet does not take the place of careful discussions with your doctor. You and your doctor should discuss PROPECIA when you start taking your medication and at regular checkups.

What is PROPECIA used for?

PROPECIA is used for the treatment of male pattern hair loss on the vertex and the anterior mid-scalp area.

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What is male pattern hair loss?

Male pattern hair loss is a common condition in which men experience thinning of the hair on the scalp. Often, this results in a receding hairline and/or balding on the top of the head. These changes typically begin gradually in men in their 20s.

Doctors believe male pattern hair loss is due to heredity and is dependent on hormonal effects. Doctors refer to this type of hair loss as androgenetic alopecia.

Results of clinical studies:

For 12 months, doctors studied over 1800 men aged 18 to 41 with mild to moderate amounts of ongoing hair loss. All men, whether receiving PROPECIA or placebo (a pill containing no medication) were given a medicated shampoo (Neutrogena T/Gel®**** Shampoo). Of these men, approximately 1200 with hair loss at the top of the head were studied for an additional 12 months. In general, men who took PROPECIA maintained or increased the number of visible scalp hairs and noticed improvement in their hair in the first year, with the effect maintained in the second year. Hair counts in men who did not take PROPECIA continued to decrease.

In one study, patients were questioned on the growth of body hair. PROPECIA did not appear to affect hair in places other than the scalp.

Will PROPECIA work for me?

For most men, PROPECIA increases the number of scalp hairs, helping to fill in thin or balding areas of the scalp. Men taking PROPECIA noted a slowing of hair loss during two years of use. Although results will vary, generally you will not be able to grow back all of the hair you have lost. There is not sufficient evidence that PROPECIA works in the treatment of receding hairline in the temporal area on both sides of the head.

Male pattern hair loss occurs gradually over time. On average, healthy hair grows only about half an inch each month. Therefore, it will take time to see any effect.

You may need to take PROPECIA daily for three months or more before you see a benefit from taking PROPECIA. PROPECIA can only work over the long term if you continue taking it. If the drug has not worked for you in twelve months, further treatment is unlikely to be of benefit. If you stop taking PROPECIA, you will likely lose the hair you have gained within 12 months of stopping treatment. You should discuss this with your doctor.

How should I take PROPECIA?

Follow your doctor's instructions.

- Take one tablet by mouth each day.
- You may take PROPECIA with or without food.
- If you forget to take PROPECIA, do not take an extra tablet. Just take the next tablet as usual.

PROPECIA will not work faster or better if you take it more than once a day.

Who should NOT take PROPECIA?

- PROPECIA is for the treatment of male pattern hair loss in **MEN ONLY** and should not be taken by women or children.
- Anyone allergic to any of the ingredients.

A warning about PROPECIA and pregnancy.

- **Women who are or may potentially be pregnant:**
  - **must not use PROPECIA**
  - **should not handle crushed or broken tablets of PROPECIA.**

If a woman who is pregnant with a male baby absorbs the active ingredient in PROPECIA, either by swallowing or through the skin, it may cause abnormalities of a male baby's sex organs. If a woman who is pregnant comes into contact with the active ingredient in PROPECIA, a doctor should be consulted. PROPECIA tablets are coated and will prevent contact with the active ingredient during normal handling, provided that the tablets are not broken or crushed.

What are the possible side effects of PROPECIA?

Like all prescription products, PROPECIA may cause side effects. In clinical studies, side effects from PROPECIA were uncommon and did not affect most men. A small number of men experienced certain sexual side effects. These men reported one or more of the following: less desire for sex; difficulty in achieving an erection; and, a decrease in the amount of semen. Each of these side effects occurred in less than 2% of men. These side effects went away in men who stopped taking PROPECIA. They also disappeared in most men who continued taking PROPECIA.

The active ingredient in PROPECIA is also used by older men at a five-times higher dose to treat enlargement of the prostate. Some of these men reported other side effects, including problems with ejaculation, breast swelling and/or tenderness and allergic reactions such as lip swelling and rash. In clinical studies with PROPECIA, these side effects occurred as often in men taking placebo as in those taking PROPECIA.

Tell your doctor promptly about these or any other unusual effects.

- **PROPECIA can affect a blood test called PSA (Prostate-Specific Antigen) for the screening of prostate cancer. If you have a PSA test done, you should tell your doctor that you are taking PROPECIA.**

Storage and handling.

Keep PROPECIA in the original container and keep the container closed. Store it in a dry place at room temperature. **PROPECIA tablets are coated and will prevent contact with the active ingredient during normal handling, provided that the tablets are not broken or crushed.**

Do not give your PROPECIA tablets to anyone else. It has been prescribed only for you. Keep PROPECIA and all medications out of the reach of children.

THIS LEAFLET PROVIDES A SUMMARY OF INFORMATION ABOUT PROPECIA. IF AFTER READING THIS LEAFLET YOU HAVE ANY QUESTIONS OR ARE NOT SURE ABOUT ANYTHING, ASK YOUR DOCTOR.

1-800-830-7375, Monday through Friday, 8:30 A.M. TO 7:00 P.M. (ET).

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A Fan's No

When sport became theater, one baseball buff walked.
By Jonathan Yardley

Unlike many American males who love baseball, I was brought to the game not because of but in spite of my father. I got to the game on my own. Now, near the end of my sixth decade, I find myself leaving baseball just as I discovered it: on my own.

My father, born in 1911, was an intellectual of sorts who found baseball, indeed all sport, beneath him; he would have sneered at the intellectuals of today who make careers out of exploring the game's Inner Meaning and—to quote one such—"spiritual transcendence." Once, in the late 1940s, while we were living in suburban New York, he attempted to fulfill paternal duty by taking me to a game in Yankee Stadium, but he was bored far past his considerable powers of expression.

No, I did baseball by myself and with the help of my friends. When I was eight my family moved to an isolated small town in rural Virginia, where baseball was a country game played by small boys in half-mowed fields, where the closest connection to the major leagues was the black plastic radio that brought them to my bedside in the dark. Unlike city boys, I grew to know big-league ball not as quotidian and intimate but as distant and mysterious. In 1949 my mother gave me a book about the Cleveland Indians; I became their ardent acolyte, cheering and weeping with them through the epic season of 1954, and in my mind's eye I tried to imagine what it would be like to see them play in that big ballpark by the lake.

Baseball was my train whistle in the night, calling me to the city. When I got there, in 1961, the city was Washington and the team was the Senators. That was the great summer of Mickey Mantle and Roger Maris and their joint yet rivalrous assault on Babe Ruth's home-run record. It was my privilege to see those sluggers park pitch after pitch in the bleachers of Griffith Stadium, further humilating the Senators, for whom "hapless" was coined. Once, sitting in

The Red Sox in 1967, when the average salary for players was $19,000.

the upper deck behind third base, I watched with astonishment as Senator Leverett Saltonstall of Massachusetts, the very embodiment of dignity and East Coast Establishment Republicanism, worked his smiling way to the worst seat in the park's worst section, an instance of self-effacement that I have not since seen repeated in our nation's capital.

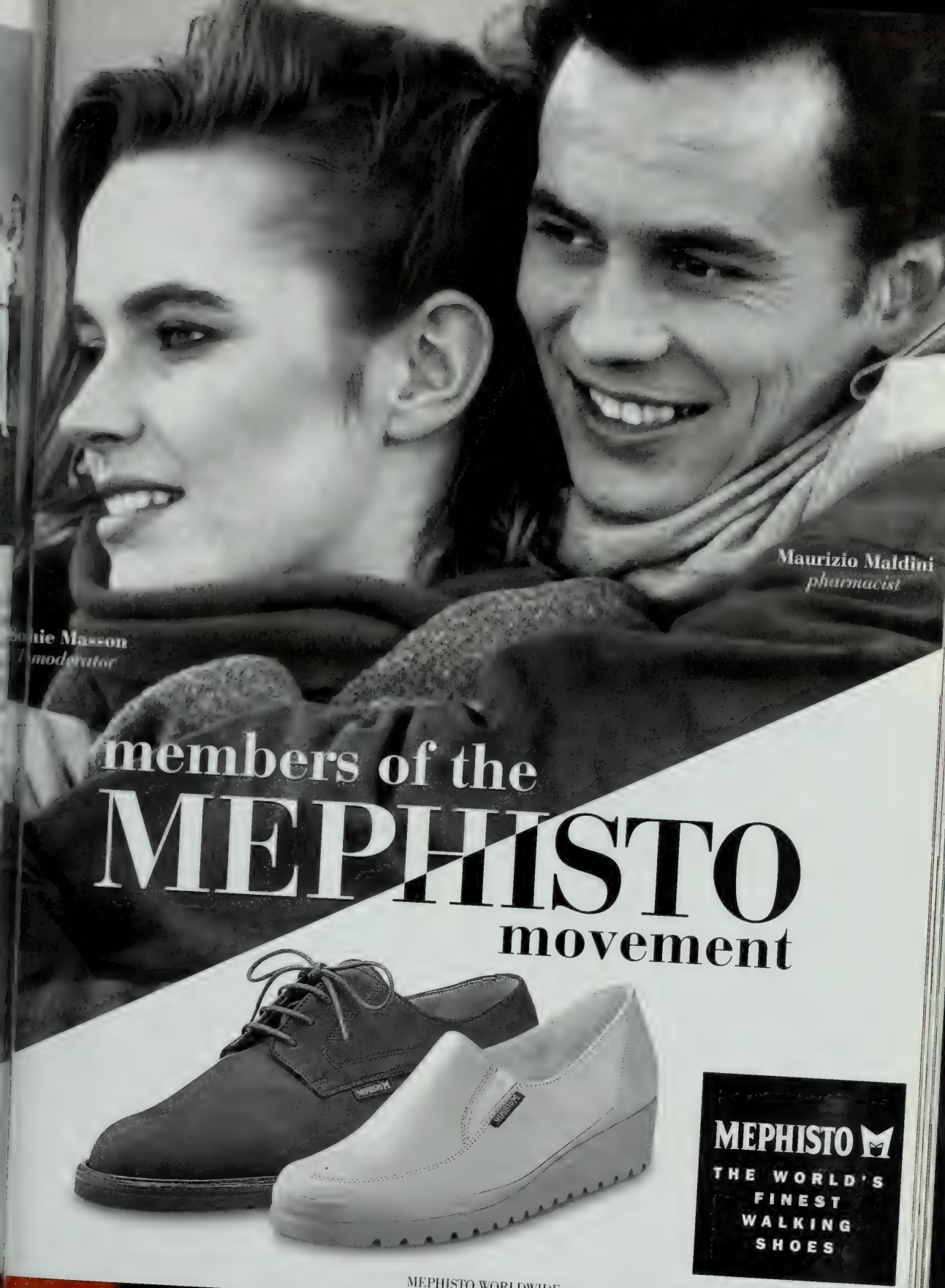
Then, a year later, I moved to New York, just in time to spend innumerable hours in the Polo Grounds before it was razed, and Yankee Stadium before it was remodeled. I was in attendance at the former for the triumphant return of Willie Mays, exiled along with the other New York Giants to California, and at the latter when Mantle, pinch-hitting in the umpteenth inning of a meaningless game against the Kansas City Royals, smacked the mightiest home run in the whole history of home runs, a shot against the right-field upper-deck facade that was, he said, the hardest ball he ever hit; nobody, as every fan well knows, ever hit the ball harder.

I left New York in 1964 and again entered baseball limbo. For a decade, living in North Carolina, I was no closer to the big leagues than I had been as a boy. I resumed my old radio habits, following the splendid Boston Red Sox of 1967, and by the time I moved to Miami in 1974 I had become that most insufferable of creatures, a die-hard Red Sox fan. If I attended Baltimore Orioles spring training games each March in Miami it was usually to see the Red Sox; the Orioles, I thought, were too accomplished in their manifold skills, too mechanical, while the Red Sox appealed to my affinity for futility and irrational hope.

Then a funny thing happened. I took a job in Washington but decided to live in Baltimore, which was cheaper and more suited to my old-shoe tastes. Friends in Miami gave me, as a going-away present, tickets for all the 1979 Red Sox games in Baltimore, assuming—as I certainly did—that my loyalty was unwavering.

But by Opening Day 1979 my heart had gone out to my new city and its team. The Orioles, who for a decad had been baseball's best and most suc cessful club, had slipped back into th pack, yet they emerged from it th year and presented me with the mo precious gift of my life in baseball: team endlessly endearing, a seaso heart-stoppingly dramatic and im probable, an ending—a loss to th Pittsburgh Pirates in the seventh gam of the World Series—that was abso lutely perfect because perfection itse would have been too much to bear.

Even now, two decades later, men ories of 1979 have the power to mo me. I am a reserved and self-co tained man, but that summer broug me to unwonted and wholly thrilli emotional heights. I stayed up un ungodly hours listening to broadcas of games on the West Coast, I dic mad dance on the kitchen floor wh Doug DeCinces hit an 11th-ho home run to win an essential game read the sports pages of the (O los *Baltimore News-American* with T mudic intensity. I was blissfu happy, caught in a world of baseb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Even now, two decades later, memories of 1979 have the power to move me. I am a reserved and self-contained man, but that summer brought me to unwonted and wholly thrilling emotional heights.

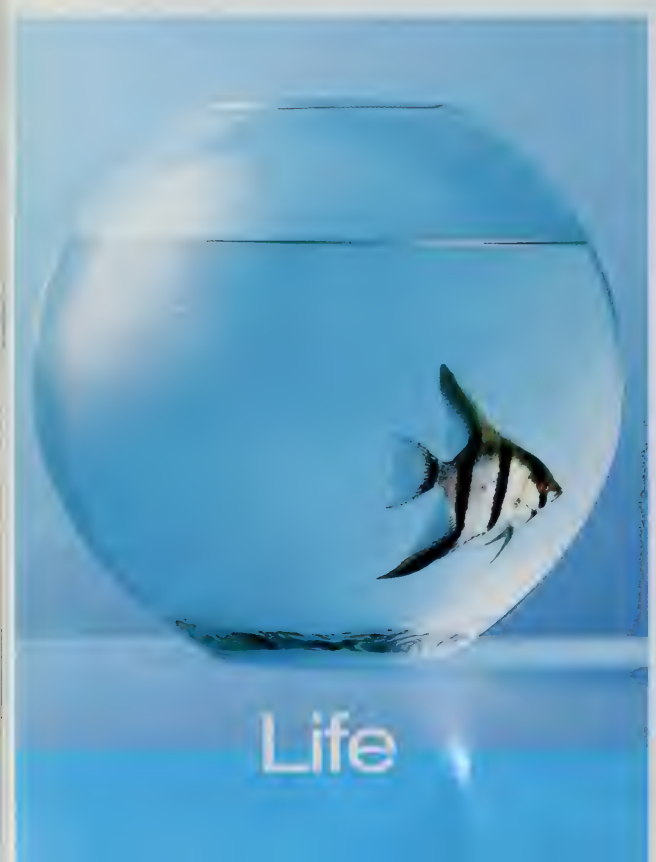
that consumed my heart and life.

For many more years I thought it would last forever. When, in 1983, the Orioles won the World Series, I too was on top of the world; their young star, the shortstop Cal Ripken, Jr., captured my fancy and promised me—as in fact he subsequently delivered—years of pleasure, culminating in those successive evenings in the late summer of 1995 when he tied and then broke Lou Gehrig's "unbreakable" record of 2,130 consecutive major-league games played. What I did not know was that the seeds of disenchantment even then had been planted and had begun to take root.

Although I only dimly sensed it at the time, baseball in 1983 was well into a period of acute transformation. Players had at last won the right to sell their services just as others do in the marketplace of capitalism. The changes in the game's salary structure, though not immediate, were dramatic. Four decades ago the Yankees agreed to pay Mantle an annual salary of $100,000, one of the highest salaries paid to any player to that date. That is approximately $540,000 in today's dollars; but in 1998 the average salary for major-league players, benchwarmers and .204 hitters included, was $1,398,831, and two players (Albert Belle and Gary Sheffield) made in excess of $10 million a piece. Reportedly, there are already 11 players who will be making $10 million or more in 1999.

I endorsed free agency for player then as I do now, but it has had un foreseen consequences. To pay th money that players demanded, own ers had to enter an economy to whic all but a handful were unaccustome People who had bought ball clubs be cause they loved the game or becaus ownership satisfied their need for sta tus and recognition suddenly foun themselves not in sports but in enter tainment, competing not merely wit each other but with all the other ele ments in that vast gaudy mix know as American popular culture.

In Baltimore this meant that Ed ward Bennett Williams, the resource ful and engaging Washington lawy who had bought the Orioles in 197 was compelled by economic neces sity—as well as his own inside-th Beltway mentality—to make th Orioles a regional rather than a loc franchise. The Orioles cannot be sa to have spread themselves thin, f they got fatter and richer by the da

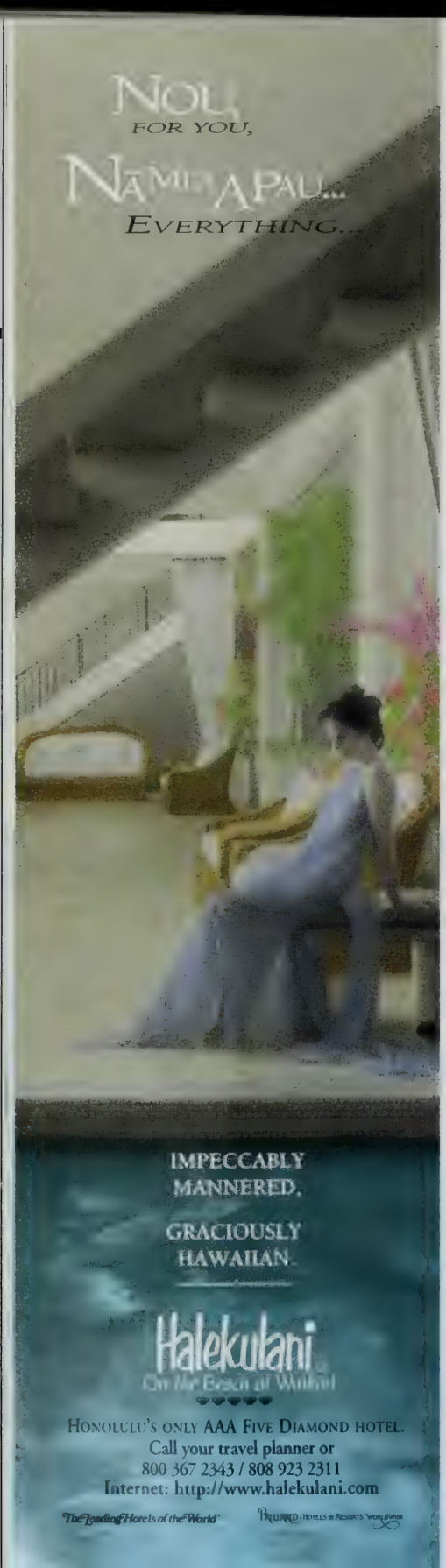


aris and Mantle with former President Harry Truman during the home run race of 1961.

but they began to turn themselves into something I did not like. They became a business rather than a ball club.

These are, I well know, strange words to write for readers of a magazine the parent of which proudly calls itself "Capitalist Tool." They are stranger still because I myself believe, with Calvin Coolidge, that the business of America is business and that business, in and of itself, is good. Yet, as many others have said and written, baseball occupies a territory somewhere between private enterprise and public trust. Even though it long ago lost the hold on American hearts and imaginations that it once enjoyed, it remains our distinctly national pastime; we expect things of it that we do not expect of other sports, or of other places to which we turn for diversion and renewal.

I am not a sentimentalist, at least not so far as baseball is concerned; nostalgia has never had much to do with my love for the game. I do believe, though, that baseball is most



true to its true character when the game itself, rather than the ruffles and flourishes and frills, matters most. I do have a nostalgic longing for days when the brief space between innings was filled with silence, or the reedy music of an organ, rather than with the rant and blare of rock 'n' roll; I like to sit in the stands with ordinary people, kids most particularly, rather than with three-piece-suit narcissists wielding cellular phones; I reserve my greatest admiration for players whose loyalty is to their fans and the cities where they play rather than to inflated contracts that too often bear no relationship to the real worth of their performance on the field.

In my long life as a baseball fan, the metaphor for the transition from the old-fashioned game that I loved to the new game that I dislike is the Orioles' move from Memorial Stadium to Camden Yards. The former, in which the team played from 1954 through 1991, was an ungainly concrete lump with narrow aisles, uncomfortable seats, inadequate pissoirs and poor lines of vision, yet it is where all but a handful of the happiest hours of my baseball life were spent. It was there that the summer of 1979 unfolded, there that at the end of the 1982 season the Orioles and Milwaukee Brewers played the most thrilling four-game series I have seen, there that I sat in wonder and delight as Tippy Martinez of the Orioles picked off three straight Toronto runners foolish enough to be perched at first base. It was there, too, that a cabdriver named Wild Bill Hagy led a motley gang of *echt* Baltimoreans in exuberant, boozy cheers from Section 34 in the upper deck, there that I discovered what I still believe to be the heart of that dear, unpretentious, blue-collar city.

Camden Yards made its debut on April 6, 1992. The day clearly meant much to me, for a handsome poster commemorating it hangs on a wall across the room as I write these words. Camden Yards, as no one needs to be told, quickly became the most admired and imitated new ballpark in the country, and a cash cow for th Orioles of utterly unprecedented pr ductivity. It was, and to this day re mains, an astonishing success and great gift—from the taxpayers wh underwrote it, not from the Orioles to Baltimore.

But as I began to attend games Camden Yards—I had been a fu season ticket-holder since 1984 ar had what I still think were the be seats in the entire park—I began understand that for all its beauty ar creature comforts, it was not my kin of place. Camden Yards is not a ba park but a stage, a platform for th enactment of rituals only margina connected to the game on the fiel The music blasting through the lou speakers, the immense machinery f vending food and souvenir gimcrack the sky boxes isolated by their priva concourse from the hoi polloi... this may be baseball as it has to ex in order to meet the competiti of basketball and video games a heaven knows what else, but it is r baseball as I once knew and loved

The game has changed on t field, too. The designated hitter, roundly scorned by the illuminati all right by me, though I miss the te sion and potential surprise of t pitcher coming to bat. What troub me more is the aggressive, bellig ently assertive attitude of the umpi goaded by their contemptible unior a union that seeks to make the u pires as visible and important as players themselves—and the lu crously extravagant amount of ti it now takes to play a nine-inn game, which has increased from a tle over two hours in my youth nearly three in 1998. It is a tell measure of the extent to which in minability has been institutionali that Roger Angell, the finest base writer of the postwar years, actu praised the Yankees of 1998 beca "they play the slowest games in majors, over three hours, on a age—almost a pictorial stat, illust ing the grave attention that t batters, top to bottom, give to

tch and the situation, and to the fate the base runner."

So slow play has a lot to do with hat baseball folk like to call "strat-y," but it is also the fault of the um-res, who somehow find endless mes in their self-interest; in part e fault of television, which de-ands long between-innings spaces commercials; in part the fault of y, self-indulgent players who daw-e at the plate or on the mound. But herever one lays the blame, my pa-nce has expired; life is too short for ree-hour games in which nothing ppens, after which one must fight wds and traffic to get home, at t, far past bedtime.

Much of this has to do with noth-g except me. For nearly two decades veraged 50 games a year in the ball-rk, more than double that on tele-ion or radio. I have had all the seball I need, and that, in the end, y be that. This explains my near-al indifference to the season of 1998, e so celebrated by so many others

The home-run derby of 1961 thrilled me, but 1998's merely bored me. McGwire is a one-dimensional ballplayer and Sosa may merely have enjoyed a freakish power surge, but for whatever reason, I tuned out.

and so widely welcomed as the game's conclusive recovery from the self-inflicted wounds of the strike of 1994. The home-run derby of 1961 thrilled me, but 1998's, by Mark McGwire and Sammy Sosa, merely bored me; perhaps this is because McGwire is a one-dimensional ballplayer and Sosa may merely have enjoyed a freakish power surge, but for whatever reason, I tuned out. Similarly, though I was an involuntary and lonely bachelor during a week of the postseason playoffs, I watched only a few minutes of them, and could not work up any interest in what was, by all accounts, a genuinely estimable Yankee team.

So it's probably just me. But I do find myself wondering from time to time—as I read about H. Wayne Huizenga buying a world championship in Florida and then disbanding the team that won it, about overpaid players nursing imaginary ailments, about one team or another blackmailing taxpayers into subsidizing a new playpen—whether my old love of the game might have held firm had the atmosphere surrounding it not altered so radically.

The question, obviously, is unanswerable; others, equally obviously, feel quite differently about the game as it now exists. All I know is that on Opening Day 1999, as on Opening Day 1998, my mind and my heart will be elsewhere. My baseball days are over. *Ave atque vale.* •

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When *Who's Who in America* makes everybody important, nobody is important. By Tucker Carlson

Michael Bolanos made it into *Who's Who in America* last year. To celebrate, Bolanos, who runs a celebrity-oriented website in New York, fired off a full-page press release to "entertainment and business editors" heralding his triumph. "To be chosen for inclusion," read the release, "candidates must have held a position of responsibility or have attained a significant achievement in their field." *Who's Who,* Bolanos reminded the editors, is a "guide to today's most influential people."

Congratulations, Mr. Bolanos. Now meet Anita Dawn Sawyer, a fellow influential person of significant achievement who also recently earned a place in *Who's Who in America.* Sawyer, a 1986 graduate of the University of Central Arkansas, teaches junior high school special education classes in Little Rock. Since 1991 she's coached bowling and floor hockey in the Alpena (Arkansas) Special Olympics. According to *Who's Who,* her hobbies include cooking, reading, crafts, playing piano and singing.

Or say hello to Stephen Geiman, who teaches gym at Wilson Memorial High School in Fishersville, Virginia. From 1970 to 1972, Geiman, a graduate of the physical education program at Appalachian State University, was the school's driver's ed instructor. Or David Dolsen, an undertaker in Denver. Or Amy Fung, an accountant from Staten Island. And let's not forget Mary Morgan, a 55-year-old social worker in Elizabethtown, Kentucky. Or Lila Licens, an administrative assistant from Tacoma, Washington, who has been president of the Mt. Rainier chapter of Professional Secretaries International since 1994. Or Courtland Paul, a landscape architect in San Juan Capistrano, who implores *Who's Who* readers to "Be on time, produce more than is expected and always, ALWAYS be fair!!!" And of course there's Marguerite Gearhart, a school nurse in Jupiter, Florida, who lists among her myriad accomplishments a 1968-69 stint as "co-leader" of a Campfire Girls troupe. Never heard of these people? Then you haven't read *Who's Who* lately.

Not that anybody has read *Who's Who* lately, or ever, at least not very closely. The point of *Who's Who* is not to read it, but to be in it. One hundred years after it was first published by Chicago newspaper publisher Albert Nelson Marquis (who despite his ostensible commitment to accuracy pronounced his name "Markwis"), *Who's Who* has been a fairly reliable guide to who has made it and who has not. That's been the marketing strategy, anyway. Flip through the latest volume, however, and it's hard not to conclude that something has changed,

that the selection criteria for "Honored Biographees" in Marquis's *Who's Who* have become—how to put it?—more democratic.

Though the number of entries in *Who's Who in America* has grown to over 100,000 in recent years, the publication has tried hard to convey the impression that standards for inclusion have remained the same. Being accepted into *Who's Who* is "an honor that only a select few ever enjoy," the company boasts. Every person in the book is subjected to "painstaking selection, research, rigorous nominee review, and thorough editorial review." And who does the painstaking nominating and selecting? Marquis implies that members of the publication's Board of Advisors play a large role in the nomination process, but they don't seem to know much about it.

"The reality is, I don't do anything," says John Fox Sullivan, publisher of *National Journal* and a member of the board for the last decade. "There is almost no communication back and forth. Once a year I get a piece of paper asking me if I want to recommend someone. It's not as if there's an annual retreat somewhere where we sit around and decide who makes it this year. Or if there is, I haven't been invited."

Mindy Aloff, a dance critic whose name is also on *Who's Who* letterhead, seems to have been left off the guest list, too. "They didn't give us any guidelines for nominating people," says Aloff, who rarely forwards names to the publication.

Then who is making the decisions? Paul Canning, the publication's editorial director from 1992 to 1997, wouldn't give a specific answer, though he did say that the admissions process is relatively simple. According to Canning, in order to become an Honored Biographee in *Who's Who in America*, the flagship Marquis publication, a person must meet "qualitative and quantitative criteria." An artist, for instance, "will have to have pieces in multiple collections at recognized museums and have one-person shows. For *Fortune* 500 companies, senior vice presidents and above are listed." Some people, said Canning, make the cut automatically. "We have a thick binder of all the people who must be included, like artistic directors at ballet companies in major U.S. cities, or CEOs of *Fortune* 1000 companies. We look for writers on *The New York Times* best-seller list. We have Nobel Prize winners, Oscar winners."

Fair enough. But *Who's Who in America* also appears to contain a lot of relatively unaccomplished people who simply nominated themselves. To make the process of self-promotion easier, Reed Elsevier, the publication's parent company and the owner of Lexis-Nexis, now has a site on the Internet where would-be biographees can complete a "biographical data form." Spaces are provided for "career history," as well as for "awards, honors, and grants." Applicants who are uncomfortable with sending personal information over the Web are invited to fax their biographies to a number provided on the screen.

There's not a word about qualitative or quantitative criteria. Does everyone who applies get into *Who's Who?* "I'll say a majority," admitted Canning, "but I can't get any more detailed than that. I think the majority are appropriate for one of our regional or topical publications. I think I need to leave it at that." In other words, just about everyone who tries hard enough will get his name in print.

It's hard not to conclude that the selection criteria for "Honored Biographees" in Marquis's *Who's Who* have become—how to put it?—more democratic.

Donald Ray Grubbs of Portland Texas, is proof that persistence pay off. From 1973 to 1986, Donald Ra worked as a pipe fitter and welder fo the Pipefitters Local 195 in Beaumon Now an employee of Longview In spection, a company that assesses th structural integrity of industrial site Grubbs has been appearing in variou *Who's Who* publications for a decad or so. Only a couple of years ago, h said, was he "elected" to *Who's Wh in America*. "You work up the chal of *Who's Who* documents," Grubb explained. "I was in *Who's Who in Americ Education, Who's Who in the World*, at then *Who's Who in America*." When w talked to Grubbs, he had ju received a letter indicating that h had been inducted into yet anoth volume, *Who's Who in the South a Southwest*. He sounded pleased. have nothing but praise to say abo them because I think they're servin good job. People like me who rea don't get out there in the limeligh this is one of our ways of getting a l tle bit of recognition. And it fe good." So good, Grubbs said, that has purchased a number of *Who's Wh* products over the years, includi a commemorative wall plaque. (T plaque, he confided, wasn't of t highest quality.) Yet despite h achievements in the world of *Wh Who,* Grubbs doesn't put on airs. don't profess to be a nationally reco nized welding instructor," he said. the other hand, Grubbs pointed o neither are a lot of other people in book. "Probably half of the weldi staff at Ohio State University members of *Who's Who.*"

Nationally recognized welding structor or not, Donald Ray Grub seems like a fairly straightforward p son, which is more than can be said many of his fellow biographees. most of those listed in the book kn entries in *Who's Who* are mostly s reported and largely unchecked, m ing it the ideal place to tidy up uneven educational or work hist When Larry Lawrence, the late a bassador to Switzerland, wanted to

ace his years at Wilbur Wright nior College with a degree from e University of Arizona, he turned *Who's Who*. Unfortunately for wrence, he got greedy, giving him- f a membership in a veterans as- iation to back up his spurious war tory and a spot on the Nobel Peace ze Nominating Commission be- e he was finally caught (though not *Who's Who*) and exhumed from his ve at Arlington cemetery. Pamela rriman, another deceased ambas- lor, never completed college, but imed in *Who's Who* to have done st-graduate work at the Sorbonne. this day, columnist Carl Rowan s 22 different college degrees in entry, none of them identified as norary. According to *Who's Who*, wan graduated from three different leges in 1966 alone, all while work- as a syndicated columnist.

Not all attempts at résumé laun- ing are so blatant, though some are siderably more sinister. In 1995, neone at the Anti-Defamation ague of B'nai B'rith noticed that llis Carto, founder of the lunatic erty Lobby, was listed in *Who's o* as a "publishing executive." hough the ADL promptly notified rquis that Carto's publishing tures consisted of printing anti- Semitic tracts, his entry was not pped until 1998. ("He never did by the book," chuckles Carto's spokesman.)

In the mid-1980s, Joe Queenan, n at *American Business* magazine, ided to test the *Who's Who* fact- cking apparatus. Queenan sub- ted an application on behalf of a nexistent magazine editor named R. Webster. Webster, Queenan te, had graduated with a master ine arts degree from F&M T&A versity and received doctorates n Quaker State University and University of Ron (Ron, France) re moving on to edit such mag- nes as *American Business, Latin- erican Business, The Business of iness, Your Business* and *Our iness Monthly*. Webster and his wife, the former Trish Abigail Boogen, had children named Cassette, Lothar, Skippy and Boo-Boo. A member of the Association of Men and the Bureau of People, he listed his hobby as "managing editing." *Who's Who* printed most of the entry in its following edition.

It was an embarrassing episode for Marquis, and thanks to improved scrutiny, most of the people listed in *Who's Who in America* these days almost certainly exist. But the book is still not edited thoroughly, which means that many entries are printed at lengths curiously out of proportion to their importance. Margaret Estelle Vorous, for example, an elementary school librarian in Berkeley Springs, West Virginia, who counts among her achievements being a blood donor, receives 49 lines in *Who's Who*. Henry Kissinger gets only 34. Anita Dawn Sawyer of Harrison, Arkansas, meanwhile, gets twice the space of Diane Sawyer of ABC News, who is listed three entries down.

Still, with 105,000 biographies, there are bound to be worthwhile tidbits buried in *Who's Who in America*, and there are. Who, for instance, apart from girls who grew up in the '80s, knew that Pat Benatar's real name was Pat Andrzejewski? Or that the rap singer Ice Cube was born O'Shea Jackson? And it's undeniably interesting—if a little sad—to learn that *Playboy* founder Hugh Hefner was first married way back in 1949. Other "facts" in the volume make for less scintillating reading.

Indeed, the first clue that *Who's Who* is a vanity publication is the "Thoughts on My Life" feature that appears beneath some entries. This is the part where biographees are invited to reflect upon their achievements using their own words. It's all pretty amusing, and it must be profitable, too, because Marquis recently decided to expand the concept. For $150, those listed in *Who's Who in America* can now write up to 200 words about themselves and their work. A 1997 direct-mail pitch sug-

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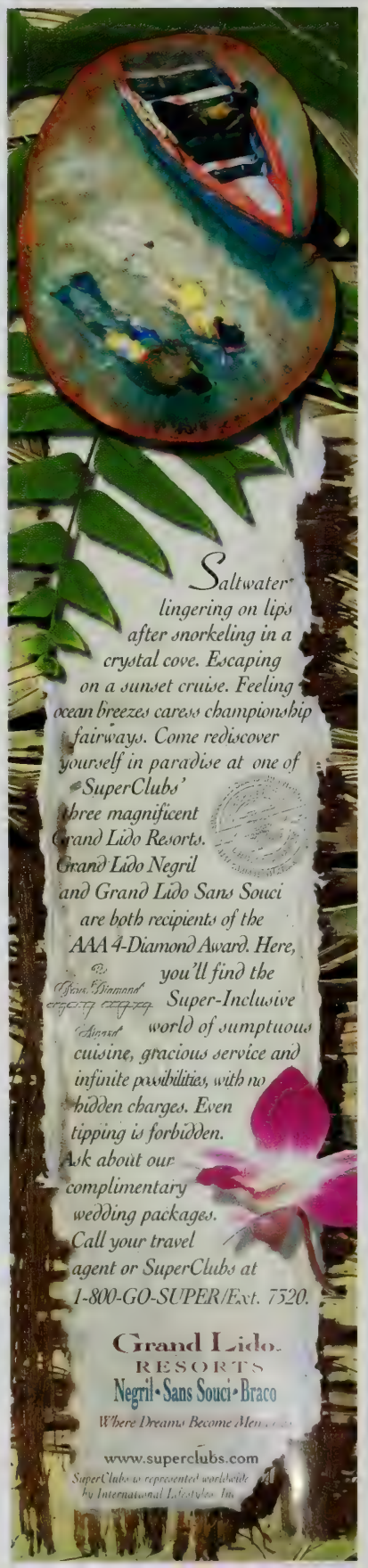

gests that biographees use the "Enhanced Biography" option to draft their own personal classified ads, sure to be seen by "industry leaders and executive recruiters." "Over 22 years of progressively responsible experience in the food service industry in key decision-making sales and marketing roles," reads one sample entry. "Recent accomplishments include successful product introductions into local markets, which generated $12.3 million growth in annual incremental sales." Perhaps "executive recruiters" really do pore over *Who's Who* looking to fill highly paid CEO slots. Or perhaps not. Either way, it's hard to see how information like this is valuable to reference librarians, the group for whom the volume is ostensibly written.

That is, until you notice the large number of librarians who are listed in *Who's Who in America*. "We think librarians are important," explained Paul Canning. "We think they contribute to society." They are certainly in a position to contribute to *Who's Who*. The ever-growing Marquis list now includes 20 different *Who's Who* volumes, including various CD-ROM versions, many of which are updated annually. A single three-volume edition of *Who's Who in America* can cost more than $500. A three-year subscription to the entire *Who's Who* product line goes for $5,686. Suddenly it becomes clear how Ruth Ferro-Nyalka, a librarian at the Hinsdale (Illinois) public library, might have breezed through "Marquis' unique and time-proven compilation process" to earn a spot in *Who's Who in America*.

Which is not to imply that vain librarians are Marquis's only source of income. The company won't say who buys its books, or even how many copies it prints. "I will not elaborate on anything about *Who's Who* to someone over the phone," said publisher Randy Mysel, brusquely. "A fax won't do it, either." A call to the company's business office proves more fruitful. *Who's Who*, it turns out, does a pretty good business renting the names and addresses of its 250,000 Honored Biographees to direct m marketers. People who are listed *Who's Who*, Marquis assures m keters in its promotional literatu "are interested in many types of fers," including pitches for new cre cards, magazine subscriptions, ca logues, association memberships a "fundraising opportunities." The tire database can be rented on co puter tape for about $22,000. Or, woman on the phone says, the list be broken down by profession, s political affiliation or religion. Th are 17,600 self-identified Catholic *Who's Who*, she explains by way of ample, and 5,300 Jews.

It must be a good list, since m Honored Biographees clearly ha weakness for ordering schlocky pr ucts through the mail. Marquis ma certain they have plenty to buy. company's "Reflections of Succ catalog advertises an entire lin *Who's Who*-related junk, from *W Who* lapel pins (at $52.95 plus shipp and handling, they "quietly dec your accomplishments") to *Who's* key rings, paperweights and cry boxes. The home office seems t a particularly brisk business in c memorative wall plaques, whic close to $100 apiece doubtless m for a profitable little sideline.

One of the latest offerings f Marquis is the *Who's Who*/Ch Chase Bank MasterCard. Cardh ers are eligible for a discount on merchandise they buy from the *W Who* catalogue, which brings the tire enterprise full circle. I'm not li in any of the *Who's Who* volumes, I decided to order one anyway, m to see if I could. I could. The mon my MasterCard arrived, I called *W Who*. "One sterling lapel pin, ple I said. "I'm interested in quietly claring some of my achievemer "Which book are you included the woman asked. None, I said. didn't seem fazed in the sligh "Well, you have to be listed," she brightly. "But you can talk to editorial department about that transfer you." •

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ne...More...Millennium...Suggestion...: Insatiable lebrants still searching for an out-of-the-way place to take the New Year should check out the Dance of the Dateline our. Beginning December 27, **Sky Trekking Alaska,** air tour outfit in Wasilla, will lead an 11-day blitz of e rugged outdoors and Eskimo culture of the northern ntier. For $12,375 per, revelers get two New Year's cele- ations—technically the first and last of the day—at Little iomede, an Eskimo village on the International Date Line st a few miles from the Russian border. Then the Sky ekking crew fires up the Cessnas and heads for some of laska's most spectacular scenery and culture. Stops include nch with the subsistent Yu'pik Eskimos on Sarichef land; the Great Kobuk Sand Dunes; a dip in the Manley ot Springs; the Arrigetch Peaks; Mt. McKinley; the ward Peninsula; a chance at seeing the 400,000-head rcupine Caribou herd, and more. Sky Trekking is a first- ass outfit (see *Forbes FYI,* Summer 1997) so it should be memorable celebration. *Sky Trekking Alaska, 485 Pioneer rive, Wasilla, AK 99654; (800) 770-4966; (907) 373-4966; ww.skytrekkingalaska.com.* —STEPHANIE TURRETT

A sky-high New Year's celebration with Sky Trekking Alaska.

rks & Caicos: If you can manage to snag a reservation, ck your best Malatesta pareo and head to **Parrot Cay,** a ivate 1,000-acre island in the British West Indies. The ex- usive retreat, tucked in the Turks & Caicos archipelago, is e newest and most seductive beach-fringed sanctuary anywhere. (So there.) Masterminded by B.S. and Christina Ong, owners of London's cutting-edge etropolitan and Halkin hotels, the luxurious resort opened quietly last ecember. It became a "paradise" a few days later when rafts of glamorous gnoscenti descended on it with entourages of kids, nannies, personal train- s, bodyguards and gobs of friends.

Where they'll be next December is anybody's guess, but there's plenty for the st of us at Parrot Cay. Start with more than three miles of white flour-sand aches. Add sybaritic accommodations, a rimless eternity pool, tennis courts d state-of-the-art fitness center. Top it off with heel-clicking service, a holis- spa and remarkable cuisine.

Unlike the low-lying, mostly uninhabited islands around it, Parrot Cay boasts o-foot rise, topped with the pink coral-trimmed, Mediterranean-style central ilding housing the lobby, bar and restaurant. Boudoirs are in colonial-style

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hillside buildings or pine-clad beach villas. There are 56 whitewashed rooms and suites designed by Keith Hobbs, London's minimalist scene-setter, all insouciantly chic and inviting. Consistent with Hobbs' somewhat hard-edged vocabulary, they're spare but hardly bare. Rooms are centerpieced by a pencil-post bed, closet and louvered verandah doors hung with miles of diaphanous white fabric, and little else than a few pieces of plantation-style Balinese furniture. Conspicuously absent television sets are furnished on request.

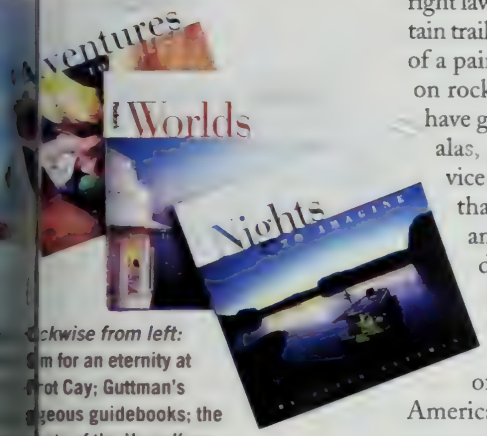
The dining room is outfitted in—what else?—white starched linen and chalky English bone china. It's a nice backdrop for the wild Asia-meets-Islands cuisine by the Michelin-starred chef. Among delicacies that'll knock your Manolo Blahniks off are lobster risotto and stuffed mussels, warm foie gras and zesty Moroccan lamb. And the wine list is terrific.

Diversions? Energetic astanga vinyasa yoga classes, traditional Thai and Balinese massages, the usual watersports, an offshore barrier reef, or just vegetating under the white linen umbrellas on the beach. You can also do picnic sorties to neighboring Little Water Cay for giant iguana peeping or North Caicos to see flocks of pink flamingoes. *Parrot Cay, P.O. Box 143, Providenciales, Turks & Caicos Islands, British West Indies; (800) 628-8929, (649) 946-7788, fax (649) 946-7789; spring rates: doubles from $440, two-bedroom beachfront suites with private pool, $1,440.* —MARION LAFFEY FOX

Hong Kong: The Union Jack is gone; in its stead flies the Chinese flag. That's about the only meaningful difference discernible to travelers in this capital of 21st-century Asia. For anyone who may have worried that **The Peninsula** would be converted into military barracks, rest assured: Its grand lobby still takes [illegible] breath away; its harbor-view roo[illegible] overlooking the Hong Kong skyl[illegible] will still make your jaw drop; its qu[illegible] flawless service still sets the stand[illegible] for all other hotels, everywhere.

But a small cultural revolution [illegible] taken place within these famed w[illegible] in the form of The Peninsula Ac[illegible] emy: a series of classes, semin[illegible] excursions and demonstrations [illegible] tended to share with guests the sec[illegible] that make Hong Kong so spec[illegible] Over three or four days, guests mi[illegible] learn the principles of feng shui; t[illegible] private cooking classes in any of [illegible] hotel's restaurants (including Spr[illegible] Moon, arguably Hong Kong's b[illegible] Cantonese); become acquainted w[illegible] Chinese tea rituals; consult with [illegible] herbalist about the medicinal bene[illegible] of Chinese herbs and plants; enjo[illegible] early-morning workout with a tai [illegible] master; learn the basics of Chi[illegible] calligraphy, and more.

Those who feel they need t[illegible] rewarded for "working" on their [illegible] cation will be happy to know t[illegible] whichever emphasis they select—[illegible] sine, culture, lifestyle—the progr[illegible] are heavy on pampering: wine-fi[illegible] dinners, use of the fantastic spa f[illegible] ities and chauffeured drives to [illegible] from the airport in one of the ho[illegible] Rolls-Royces (from a fleet of ten). *Peninsula Academy's "Chinese Cult[illegible] Experience," around $1,600 per*



ckwise from left: m for an eternity at rot Cay; Guttman's geous guidebooks; the rets of the Hong Kong hen at the Peninsula Hotel.

d/double occupancy for three nights/ r days (call for dates and availabil-). The Peninsula Hotel, Salisbury Road, wloon, Hong Kong; (852) 2920-2888, (852) 2722-4170; or Leading Hotels 0) 223-6800. —JEFF TURRENTINE

ountain Getaways: This sum-, when you visit your happy campers upstate New York or New Eng-d, note the quality of their accom-dations in relation to your own. hibit A: **The Sagamore Hotel,** ich commands a private island Lake George, in the Adirondacks. nbows break over unspoiled wood-d opposite the 64-boat dock. The el can arrange private fishing editions, or you can charter the amore's 72-foot yacht, *The Morgan.* Despite the size of the Sagamore rooms), there is a charm and sim-ity in its New England manner. arm comes from staffers such as Martin, a resident guide who, last ng, shepherded my group of copy-right lawyers through a muddy mountain trail, calmly stopping us well short of a pair of black rattlesnakes coiled on rocks. (Though, of course, we'd have gotten along fine.) Simplicity, alas, comes from waiters and service staffers who too often show that combination of familiarity and poor training which engenders responses such as "I dunno if we can do that."

Exhibit B: Sayed Saleh understands that service is often the Achilles' heel of the American hotelier. Mr. Saleh is the owner of **The Orchards,** in Williamstown, Massachusetts—about 70 miles southwest of the Sagamore, in the Berkshires. A 49-room property centered around a courtyard and pond, the Orchards is decorated in English antiques. The guest rooms have fireplaces and four-poster beds. The hotel does an authentic afternoon tea, and has a good restaurant, Yasmin.

At the Orchards, service is meticulous, discreet and refined. I was a guest during the lull before the start of the Williamstown Theatre Festival, which fills the hotel in the summer. All services were still in operation, all requests granted and often anticipated with a deference which never slid into unctuousness.

There is maybe a five-percent difference between what is good and best in hotels. But what a difference. When Junior finishes camp, treat him to the Orchards for the weekend. He's earned it. *The Sagamore, 110 Sagamore Road, P.O. Box 450, Bolton Landing, NY 12814; 800-358-3585; rooms from $145 (low season), $365 (high). The Orchards, 222 Adams Road, Williamstown, MA 01267; 800-225-1517; rooms from $125 (low), $165 (high).*

—ALAN BEHR

Bookshelf: Sometimes the trickiest part of adventure travel is figuring out where to go. The ***Imagine*** series of travel books by writer/photographer Peter Guttman can help. Each coat pocketsize hardcover offers around 30 unusual getaways, along with se-

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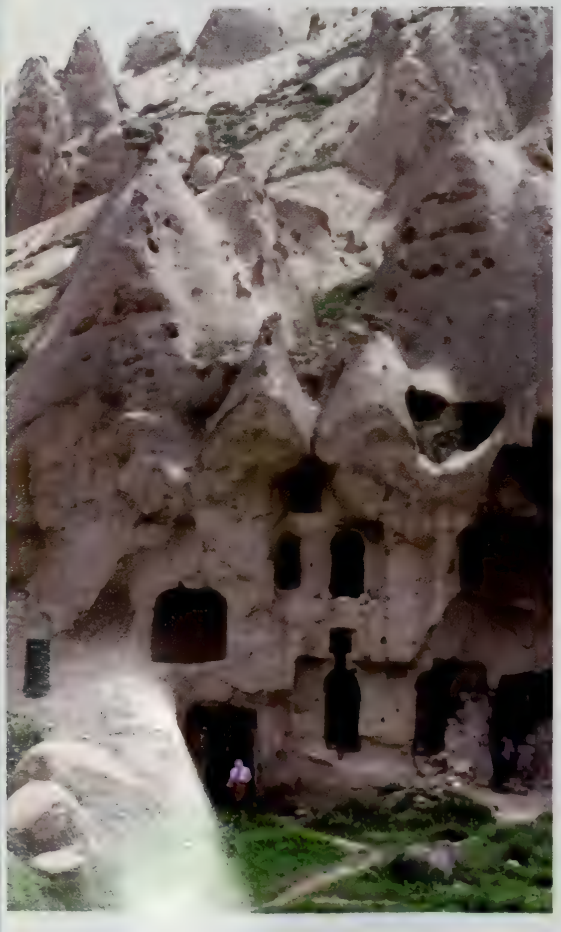
ductive narratives and dreamy photographs. *Worlds to Imagine* includes a dugout expedition to Venezuela's Angel Falls, barging in Holland and gorilla-tracking in Uganda. *Adventures to Imagine* stays in North America, with "land yachting" in the Mojave Desert, climbing the Seneca Rocks in West Virginia, and tornado-chasing across the Great Plains. *Nights to Imagine*, which launched the series in 1996, has a plethora of quirky American getaways. Each book includes a helpful directory of tour operators, and Guttman—one of those enviable characters who's been everywhere and figured out how to cash in on it—has personally experienced each adventure. *From Fodor's, $18 a piece, (800) 533-6478.* —Stiv Gritters

Caves with a view—and *what* a view—in Goreme in the Cappadocia region of Turkey.



Cappadocia, Turkey: I've stayed in hotels, motels, trains, ships, tents, teahouses and RVs. But until my wife and I crawled into bed in cozy No. 5 at **The Sarihan** in Goreme—a charming little village in the heart of Cappadocia, some 400 miles southeast of Istanbul—I'd never slept in a cave.

We weren't doing anything radical. Goreme has a dozen "cave-tels," and 1,000 natives who still live in surprisingly comfy grottos. Thirty million years ago, three volcanoes simultaneously erupted in Cappadocia, spreading a thick layer of ash which hardened into a soft, porous stone called tufa. Erosion sculpted the tufa into a stunning landscape evocative of the southwestern U.S., but entirely its own, especially the towering, cone-shaped rocks called Fairy Chimneys. George Lucas used the terrain for the moonscape scenes in *Star Wars.*

Some 6,000 years ago the Hatti, the first people to inhabit Cappadocia, dug homes out of tufa, and most who followed (including the Persians and Alexander the Great) did the same. From the 7th to 11th centuries, Christians in Cappadocia discovered that tufa was good for carving out churches, monasteries and underground cities for protection against Phrygian invaders.

Goreme is the place to stay when visiting the region. The resident troglodytes wear Levis, drive Renaults and have satellite TV, cordless phones and microwaves. Enterprising businessmen have turned several of Goreme's cave dwellings into motels and pensions, updated, of course, with modern conveniences. The Sarihan sits high atop a hill with a beautiful view of a valley full of Fairy Chimneys. Caves—I mean rooms—are spartan but clean, with good heat (it gets cold at night) and there's a great Turkish breakfast of olives, feta, cucumbers, tomatoes and boiled eggs.

The best way to see Cappadocia by foot on the miles of well-mark hiking paths. It's an hour's walk fro the village to the Goreme Open-A Museum, which has more than 30 ca churches, many with well-preserv frescoes, as well as to the hilltop to of Uchisar, with a fort dug out o tufa rock the size of a Manhattan o fice building. Cave-dwelling locals a very friendly, and love inviting touri into their homes for apple tea a nuts. *Sarihan Hotel Pension, 90-38 271-22-16. Don't miss the pizza a chicken kebabs at the Rose Kebab Din* —Rick Lips

Isles, Scepter'd and Emeral And did those feet in ancient tim Walk upon England's mountai green? Well if they did, too bad th didn't have ***Ogilvy's Britain and I land*** for a guide. Handy for travel accustomed to staying in luxury d and hoping to steer clear of all th dark, Satanic mills that pass the selves off as "quaint lodging" in t UK and Ireland, this brand-new monthly newsletter delivers only best in accommodations, restaura shopping and excursions. In a la where every other building seems be a bed-and-breakfast of some s perils abound. So *Ogilvy's* does y work for you, narrowing the field contenders to those in whom you have complete faith. A recent is looked at Sussex's Spread Eagle a London's One Aldwych and Eger House—not to mention shopp in Bath, golf at the K Club outs Dublin and dining in and out of L don. It's all written stylishly, w smart illustrations and lots of valua clues to getting the most for your t and money. *$100 per year for six iss* Ogilvy's Britain and Ireland, *Co House, Upper Largo, Fife KY8 6JF, S land; for a free sample and/or subsc tions, 888-OGILVYS.*

—Paul Schwendim

Amusement Between Debau eries: Perhaps the opposite of be "too rich and too thin" is being

ng in **Alsace,** the province with the atest number of Michelin-starred staurants outside of Paris. Flung ck and forth between France and rmany four times in the last hun-ed years alone, Alsace has delight-ly retained the best of both: the nch affection for the *raffiné*, and Teutonic predilection for culinary ess. The province is most famous its gingerbread-perfect hundred-le wine route, including the superb mbach vineyards, producer of some France's most sublime Rieslings and würztraminers.

Yet even the most dedicated Dion-an is eventually compelled to rise m the table. **The Museum of Wall-per** stands as a bastion of restraint a province gone mad with *gastro-mie*. Tucked just outside of Mul-use, in Rixheim, it houses one of largest collections of wallpaper the world. Originally constructed headquarters for Teutonic knights, building has been home to the nch wallpaper industry since Jean Zuber established his factory there in 1797.

Earliest designs were imitative of intricate fabrics and architectural detail. But by 1800 wallpaper became the ultimate in armchair travel with panoramic images of far-flung lands enticingly combining reality and exotic fantasy: the tropics of Brazil, the mysteries of Hindoustan and "Views of North America." The latter was made famous when a certain Francophile First Lady got a copy for the White House.

Jackie Kennedy's favorite wall coverings—and much more—at the Museum of Wallpaper in Rixheim, Alsace.

There are enough stairs to let ambitious gourmands pretend that the visit has been not only cultural but aerobic. Having thus duly justified the next indulgence, steal the 1930 Bugatti Royale Coupe Napoleon from the National Automobile Museum in Mulhouse, and drive the wine route to the three-star Auberge de l'Ill in Illhaeusern for their exquisite whole truffle *en croûte*. *The Museum of Wallpaper (Musée du Papier Peint), 28, rue Zuber, 68170 Rixheim; 33-3-89-64-24-56; fax 33-3-89-54-33-06.* —JUDI FARKAS

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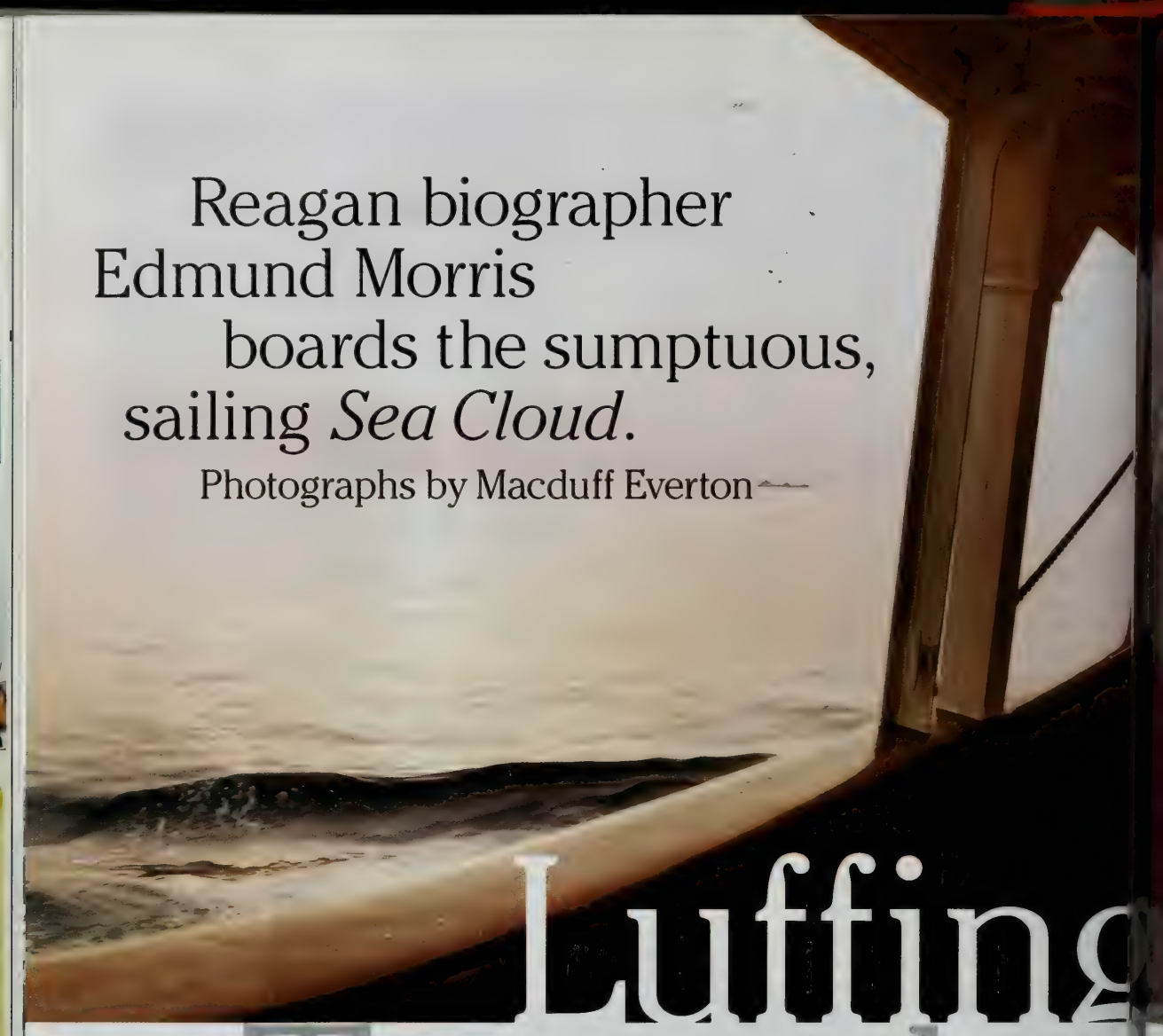


Reagan biographer Edmund Morris boards the sumptuous, sailing *Sea Cloud*.

Photographs by Macduff Everton

Luffing Toward Ravenna

The mighty ship enters the Strait of Messina.

Samuel Johnson once feelingly remarked that a ship is like a jail, "with the chance of being drowned." And the good Doctor never even experienced the typical twentieth-century cruise ship, which, to this landlubber at least, is definitely a step down from Death Row. • Drowning, indeed, would have been a merciful release from one cruise I remember, linking several of the more noisome ports in the Caribbean, at one of which a coffin was furtively carried ashore. The ship was laden with so many overweight persons that it listed to one side at the entrance to the Panama Canal and damaged a much-needed stabilizer. My wife and I were alarmed to note how haggard this frightful experience was making us, until we discovered that every mirror on board was deliberately warped to give passengers the impression that the sea air was slimming them. • All the above prejudices, and more, caused us to hesitate for several seconds before accepting a suggestion from the editor of this magazine that we take a ten-day "gourmet cruise" in the eastern Mediterranean aboard *Sea Cloud.* A four-masted bark, once the toy of Marjorie Merriweather Post, she is generally conceded to be the most luxurious cruise ship afloat. One glance at the fares quoted for the trip, rising to $10,500 for A-category staterooms, was enough to reassure us we were unlikely to encounter any of our former shipmates. • So, packing a few items of finery (most importantly, a black dinner suit and some spangly tops), we flew to Palermo, Sicily, and joined 62 Americans and Germans at the Grand Hotel Villa Igiea for preembarkation celebrations.

Sea Cloud was nowhere to be seen in the harbor as we strolled through Villa Igiea's palm-shaded gardens, in the cool of a Sicilian spring evening. It is an irony of cruises that one usually enjoys oneself more on land than at sea—as Ronald Reagan would say, how many whitecaps do you need to look at?—and I personally wouldn't have minded if the damn tub had sprung a leak, and gone down with all hands off Stromboli. The jasmine-scented breeze stirring those leaves and flowers was so luxurious, after a long winter in Washington, D.C., that I felt like buying a white suit and applying for permanent quarters upstairs.

In order to encourage my wife to subscribe to this fantasy, I read seductive extracts from the Villa's literature, written in the bejeweled prose for which Italian hoteliers are famous:

> *Basile, superimposed it, at art, to one construction already preexisting, inspired to the "400 Siciliano" previously belonging to an English gentleman, such Downviller.*

We were a bit baffled, so I took her inside to see Signor Ernesto Basile's handiwork, a ground-floor salon (1908) of such art nouveau exuberance that it would not shame the best bordellos in Paris. I don't know what Mr. Downviller thought of it, but horny King Edward ("I Serve") VII naturally felt at home here, and became the first of many European *têtes couronnées* who wintered in Palermo in the Belle Epoque.

Their photographs line the Villa's long, spacious, marble-floored corridors, sweet with the smell of lavender wax: splendid ladies and gentlemen in flowing linen, cane-t[ap]ping, fan-waving, looking at me in my airplane-crea[sed] blazer with calm disdain.

"I think you'd better change before dinner," my w[ife] said.

It's a good thing I did, because the impresario of [our] cruise, memorably named Annemarie Victory, is a w[ell]-connected and multilingual lady who makes sure that [her] clients move in the best circles on evenings ashore. T[his] particular night, for example, she somehow persuad[ed a] Viennese contessa, married to the racing-driver scio[n of] one of Palermo's oldest families, to entertain us all to d[in]ner in their downtown palazzo.

We followed Annemarie along a succession of anc[ient] streets whose paving stones, buffed by a constant swis[h of] soles over the centuries, have achieved such a satiny g[loss] that the approach of a scooter, with its headlamp dipp[ed] and swaying, made me think of those luminous persp[ec]tives you see in old editions of Dante's *Inferno*. Ducl[ing] out of the way of this oncoming one-eyed monster [we] found ourselves crowded into a dark courtyard, whe[re] like some vision of superior days, a '35 Fiat Coppa d'[Oro] gleamed. Only an aristocrat could have parked it so [as] ligently in everybody's way, its front tires splayed at [such] an insolent angle.

We ascended into the Count's house—a series of [vast] and rather shabby galleries rendered sinister by a prep[os]derance of pictures, books and videocassettes to do [with] Richard Wagner, of all people. When I asked the Con[t]

Despite much jiggin' in the riggin', Sea Cloud ne'er met a fair wind.

ut them, she explained that the composer of *Tristan* ed to stay here, when he would come to Sicily."

She showed me an ancient Pleyel piano in the dining that Wagner used to play, and menacingly announced t she had herself been "a performance artiste" before rrying "Mr. Mille Miglia." Sure enough, we were enaded right through dinner, although I am happy to ort that she eschewed the "Liebestod," and rendered e Neapolitan *canzoni* with delightful brio. On the out we were encouraged to peek into the Count's y, which more or less conformed to the size and e of a racing-car cockpit.

Shortly before dawn, a couple of mornings later, I woke, as one often does on a cruise, trying to figure out why my bedroom was swaying gently from side to side. Then the pale blue of a porthole reminded me that I was ensconced, courtesy of Annemarie and a convenient cancellation, in *Sea Cloud*'s third most sumptuous cabin. It was improbably large, for such a small ship, with a marble bathroom and enough walk-in closet space to satisfy the wardrobe needs of an Imelda Marcos.

"Do you want to come up on deck and see the Strait of Messina?" I asked my wife. "It should be light soon, and Mount Etna might show."

She gave off certain sleepy signals that indicated that Mount Etna could erupt for all she cared. So I white-robed it up the central stairway, and stepped out onto the clean teak deck just as a tangerine rind of sun uncurled over the hills of Calabria.

Sea Cloud's four great masts spiked the sky, bare of canvas, while a quiet engine thrummed astern. It is an understanding on cruises that the ship will deploy full sail at least once a day, weather permitting. But the air this morning was so still—even the sea barely heaved—that I suspected it would be a while yet before anything was unfurled. Etna, alas, was veiled in cloud, but as we moved slowly between the toe of Italy and the shoulder of Sicily, I was vouchsafed one of those sights, common in the Mediterranean, that connects our present civilization with those of Greece and Rome, and the enduring rhythms of Nature: a lone dolphin arching alongside, exactly as fast as we were moving, his back hardly disturbing the silky smoothness of the water.

As the sun notched higher, the sea turned pink. Had I an ounce of sensibility I would have composed a sonnet on the spot. But gross gourmand that I am, I could only compare the pink to that of ham, and the puffy cumulus to scrambled eggs, and the spirals of wrapped sail to croissants. A timely fragrance of coffee brewing summoned me below to breakfast. By then *Sea Cloud* was through the Strait, and pointing her bowsprit toward Taormina.

et! Please! *The Morris eroom, third most luxurious mmodations aboard.*

One glance at this bark's breakfast buffet (not to mention a general luster of brass and glossy white paint), and you can tell that *Sea Cloud* is owned by Germans. The prodigious array of mueslis and cheeses and hams and albumen-rich mock crab and jams dropsical with fruit bespeak a heartier culture than our own. Personally I can do without a wheel of cold Gouda when the day is young, but the old ceramicist from Munich lining up in front of me had no such scruples, and cut himself a chunk big enough to hold open the dining-room door.

That swinging mahogany fixture (still watertight, after 67 years) disclosed, as I sat with my *cappucino,* a succession of fellow voyagers. They were fairly typical, I would guess, of *Sea Cloud*'s usual cruise complement: two lanky honeymooners from the Main Line; a lusty old lady who owns a national trucking company; one of New York's last gentleman editors and his poetic wife, in a turban; the inevitable relative of Marjorie Merriweather Post, determined to talk genealogy; an interior designer and his carefully tanned companion; three or four meaty executives whose complexions bespoke membership of the Chevaliers du Tastevin; some surgically enhanced widows in Pucci prints; a melancholy Dane with cataracts; a languidly elegant young couple from Greenwich Village (she in oversize shades, he wearing a Panama hat that must have cost him more than my mortgage), and finally, my colleagues on this assignment, a photographer and a painter from Santa Barbara, and a small, pretty writer, last seen by me in bed.

Together we marveled at the only pair aboard who did not quite fit in: a quiet old chap from one of the smaller maritime states, and his splendidly busty daughter, whom shipboard rumor held to be a receptionist in an Indian casino. They looked askance at all the silverware, and kept shyly to themselves.

Taormina, where we disembarked at noon, is a hilltop town, one of those three-star "worth a journey" sites that have been so determinedly uglified by the tourist industry as to cast desolation on the soul. Its souvenir shops coalesce,

Right: *Mr. Panama Hat regards a ruined empire.*
Below: *coming in to Corfu.*

street by street, into a sort of ghetto of kitsch. My wife
I took refuge in the ancient Greek theater—pine-fragr
bird-haunted, with panoramic views—and from its h
est seats looked down on *Sea Cloud,* moored next to
own reflection in the bay of Naxos. A jovial conversa
in German disturbed us. Incredibly, it came from the s
far below. Every umlaut was audible in the still air.

Mutiny was brewing as we set sail that after
for Corfu. Apparently young Mr. and Mrs. M
Line wanted to re-plight their troth on the
Deck before dinner, surrounded by family members
whomever else wished to join them for champagne
wedding cake. A romantic idea, but in order to be sp
at sea, one needs a certain degree of cooperation fron

ister of the vessel. There was no way in holy hell that Captain Richard T. Shannon, a faithful followher of th' ways o' th' Mother Church, was goin' to marry a pair of Episcophalians who had gone down the aisle already. I do not know what arguments were brought to bear, during the course of hours of frenzied negotiations, but wouldn't be surprised if a new chapel isn't going up right now in County Cork, financed by the stepfather of the bride. Anyway the ceremony took place as planned, Bible and all, and I must say those two tall infidels looked good as they danced around the deck, shouting with laughter, under the early stars.

Due to a seating vacancy, brought about by the defection of some of my companions to the Captain's table, I found myself obliged to entertain the busty young receptionist. "Dad's sick, he won't be joining us," she said, assisting her *carpaccio di bocca con pesto* with the largest possible fork.

The next course, a tomato consommé *con broccoli agretti*, was more to her taste, and she loudly enjoyed it, dissing with bread. "I have to watch my weight."

I found myself watching her weight too, at least the considerable proportion of it that she displayed above the perimeter of her tight evening gown. There are, I believe, some men in the world who can resist such *tours d'horizon*, but I am not of that disciplined ilk. She was obviously aware of my awareness, and seemed not unpleased. After a couple of cocktails and half a pound of sautéed rock lobster, she waxed confidential about her "college days." (College?) "I hardly touch liquor now, but you shoulda seen the libations we used to concoct at Lauderdale during spring break. There was one called Slippery Nipples—"

I choked on a flageolet. "Excuse me?"

"Slippery Nipples." She listed the agglutinative ingredients, not one of which I can recall because of a riot of unavoidable mental imagery.

"And another one might interest you, since you come from Bill Clinton's hometown. It was called Blow Job. The trick was, you had to bite the rim of the glass—"

Cooling off on the rear deck later, I regaled my wife, the photographer, the painter, and Mr. and Mrs. Panama Hat with details of our conversation. Again we wondered how Ms. Nipples and her father could swing such an expensive cruise. But the beauty of the moon (oscillating back and forth between the still-stark masts) reduced us at last to silence.

We spent the whole of the next day at sea, and Captain Shannon, rather grudgingly, I thought, ordered the sails up for a couple of hours. A passel of fresh-faced young crew—boys and girls, most of them German or Dutch—scurried over the rigging like squirrels, and shook out the heavy canvas. The engine died, and in place of its thrum came the hypnotic sounds of a white hull hissing through water, wind through ropes, and the creaking of a thousand comfortably coexisting timbers. Standing alone beneath the fore topsail, I recited the simplest and most eloquent explanation of what was happening, from Coleridge's *Rime of the Ancient Mariner.*

The air is cut away before,
And closes from behind.

Dubrovnik largely escaped Serbian barbarism.

All too soon, the engine was back in action, and we did not see sail again until another reluctant deployment three days later. If I had been forking out ten thousand clams to experience "all the historical aura of long-forgotten windjammers," I'd have felt a mite miffed.

While in the negative mode, I might add that the featured wines on this so-called gourmet cruise, all Italian except for a couple of welcome Croatian alternatives when we got to Dubrovnik, were uniformly too new and hence laced with tannin. Labels less prestigious, and vintages more mature, would have gone down better, and caused a lot less *mal de mer.* (And talking of seasickness, there's nothing like the nausea brought on by trying to compose on a laptop amidships, when the horizon is rising and falling in one's porthole.)

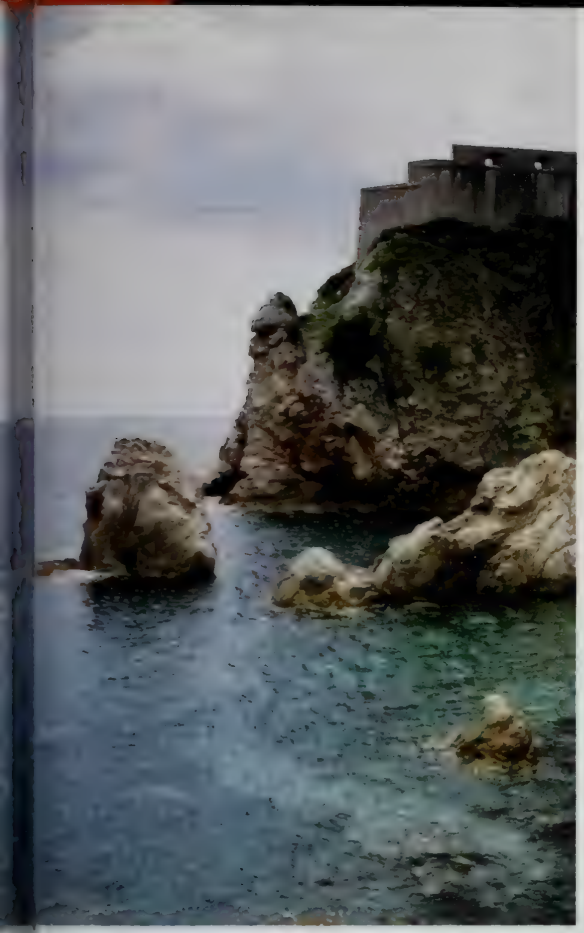
The food, however, was copious and for the most part good. I remember some sublime garlicky scampi, fresh plump red mullet, pork medallions with foie gras (greatly to the taste of the Munich potter), and a variety of voluptuous desserts—ricotta parfait spiked with chocolate, a pastry swan suppurating with raspberry sauce, a pra mousse over poached apples that gave off intoxicat fumes of Calvados.

We enjoyed a leisurely tour of Corfu, where the n beautiful sight I saw was something quintessentially M iterranean: a slow stringing-out, high over the street, of p after piece of fresh laundry. The hand movements of the seen spooler; the prismatic colors of each new square or r angle; the perfume of their scented dampness; and t more strings and more colors until the warm air flutter stood paralyzed until the pageant came to an end.

Too soon, we had to re-embark and move on up Adriatic coast to Dubrovnik, with the hills of Alb brooding darkly in the distance. Dubrovnik, which s Italians still insist on calling Ragusa, is an exquisite l walled city, remarkably unscarred by Serb bomb att during the Bosnian war. Which is to say, it has repa most of the damage inflicted by those bona fide bar ians—who deliberately concentrated their mortars or Franciscan Monastery Library, in an attempt to destr medieval manuscript collection.

Annemarie had arranged for a concert of songs f this same collection in the monastery cloister. The yo ful performers were in period dress, and they san sweetly, with perfect command of old ornamentation,

This year Annemarie Victory will host two cruises aboard Sea Cloud: April 22-30 (with Patrick O'Brian and Walter Cronkite) and September 8-18 (A Voyage Through Ancient History); for info: (212) 486-0353.



I guessed they were students from the local conservatory. I nudged to the front of our little crowd, until I could see no twentieth-century clothes, and then had no trouble in believing that I was back in the age of Botticelli.

Although Western commercialization has yet to spoil Dubrovnik, espresso machines have, thankfully, arrived, and we imbibed several slugs with the gentleman editor and his wife before circling the city by its ramparts. Caffeine fueled our stride, and the sea wind smelled of wet shells. Descending again, we traversed the city's marble main street, which proved to be even more satiny than the *calle* in Palermo, and—the eternal frustration of cruise travelers—regretted that a bus was waiting to pluck us back to the docks.

That night, a choppy one, was spent crossing over to Ravenna, where my wife and I had to disembark, missing *Sea Cloud*'s final voyage to Venice, and a gala closing dinner. Mr. and Mrs. Panama Hat, by now our firm friends, had a farewell *cappucino* with us and retailed the latest shipboard gossip. "Slippery Nipples is an heiress! Apparently her old man just won the New Jersey lottery!"

All the way home across the Atlantic, as I juggled for space in coach, I fantasized about the life I could be living now, if I had taken my chance to ask Ms. Nipples if she would like a stroll in the moonlight, that night she and I were, uh, *tête-à-tête*. But that's the way it is with shipboard romances. They blow away on the breeze. •

EDMUND MORRIS'S *long-awaited biography,* Dutch: A Memoir of Ronald Reagan, *will be published this month.*

he Unsinkable Marjorie Merriweather Post

by Sylvia Jukes Morris

me 70 crew members, in immaculate ite uniforms, lined up to greet the ng of Norway's consort as she em- rked on *Sea Cloud* for lunch. Moving o the wood-paneled dining salon, its le dressed with antique lace, shim- ring crystal and silver, the royal guest med to Marjorie Merriweather Post, d said, "Why, you live like a queen!" ndeed, as heir to C.W. Post, the Mid- stern cereal tycoon, Marjorie lived in al style on her 360-foot yacht—as e did at her estates in Washington, lm Beach, Long Island, South Car- na, an Adirondack camp and a 70- m mansion in New York City. She d designed the vessel (built in a Ger- n shipyard in 1931), and was soon ending half the year cruising all over globe with her adored husband, E.F. tton, and their daughter, the future tress Dina Merrill.

Though not the richest woman in the world—her fortune was estimated at $250 million—Marjorie lived as if she were, entertaining lavishly, buying furniture once owned by French monarchs and acquiring the largest collection of Czarist jewelry, Fabergé eggs and other *objets* outside Russia.

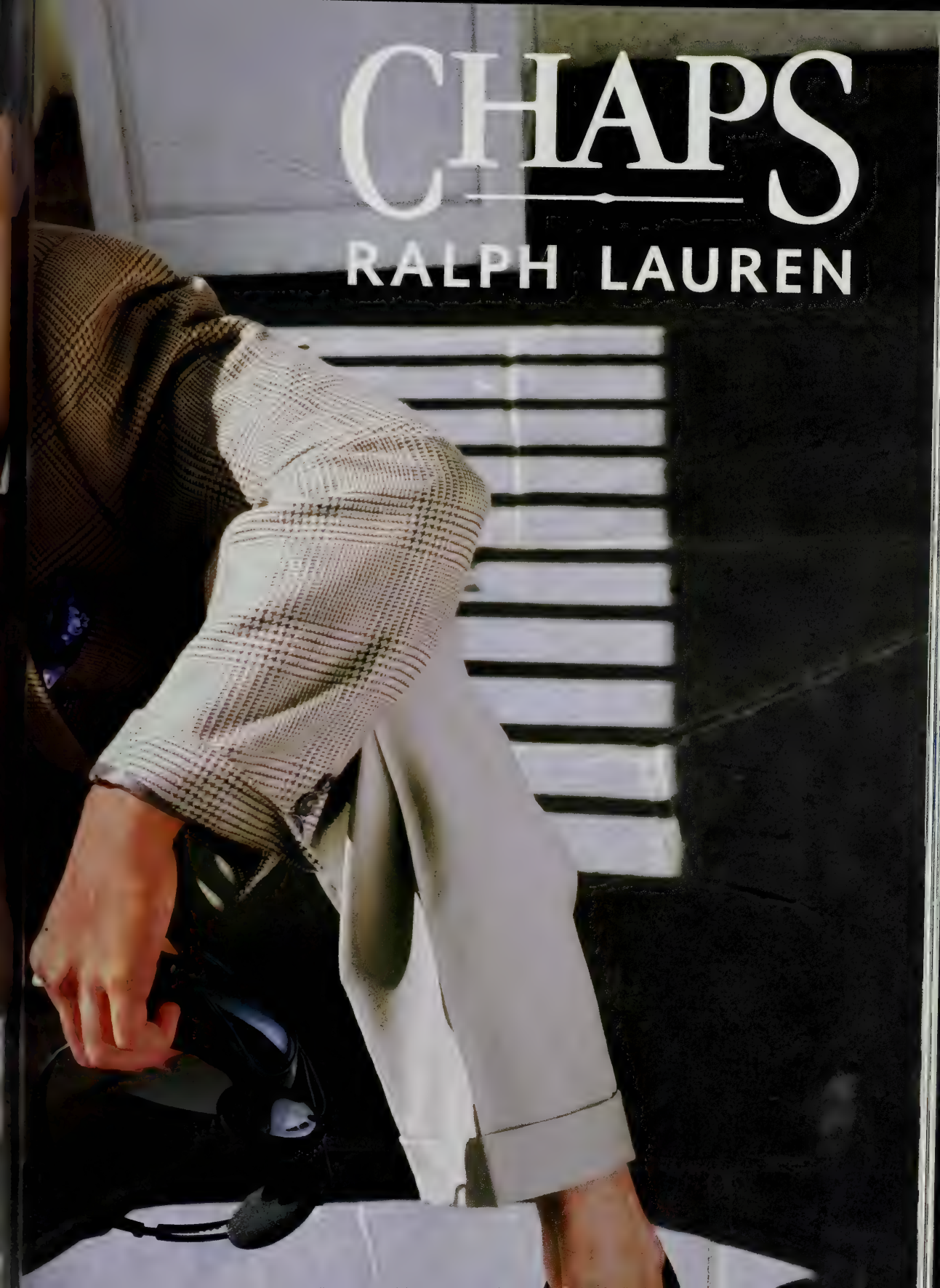
Though beautiful and pleasure-loving, she was also an astute businesswoman, having been exposed to all facets of her father's business from an early age. When C.W., a depressive, shot himself at the age of 60, Marjorie, only 27, was more than ready to take over.

Unlike her niece, the Woolworth heiress Barbara Hutton, she knew how to protect and expand her assets. She thwarted unscrupulous salesmen by becoming a gemologist, and increased her wealth tenfold by founding General Foods and making it the largest corporation on the planet. In 1937, when she arrived in Moscow, with her third husband, Ambassador Joseph E. Davies, she stunned the Soviets by importing two tons of food and 40 freezers to facilitate the catering of her lavish receptions.

Marjorie was a sensual and passionate woman, but she was not lucky in marriage. Her first husband was a sedate WASP, her second a dashing, incurable philanderer, her third a possessive larcenist and her last a homosexual. All four divorces cost her millions, because she was too much of a romantic to insist on prenuptial agreements. Ever an optimist, she tried for a fifth union in her early 80s, but the object of her affection, a much younger man, was unwilling.

The prospect of a dotage with diminished mobility, sight and hearing appalled "Mrs. Post" (by then she had reverted to her maiden name), so she simply stopped eating. When she died at 86, the last of her kind, American society was duller and less kindly.

CHAPS


CHAPS
RALPH LAUREN

Canapés at Aquavit

The New York Times' most peripatetic correspondent picks 40 of his favorite U.S. eateries.

Johnny Apple Eats America

By R.W. Apple Jr. / Photographs By Tria Giovan

THE FIRST PROPER RESTAURANT THAT I EVER ATE IN WAS AN ITALIAN JOINT CALLED Tony's on the north side of Akron, Ohio, where I grew up. It was just before the War, I was about six and the menu ran to exotica like antipasto (anchovies, peperoncini and rolled-up salami on iceberg lettuce), spaghetti with meatballs and spumoni for dessert. I guess we drank Coke or Pepsi; wine was even more foreign to my parents than anchovies, and Tony didn't do iced tea. • Tony's is long gone, like most of the restaurants where I have engaged in my own idiosyncratic form of body-building over the last half-century. That's the thing about restaurants: They disappear. The other day, I was looking through a book called *Great Restaurants of America,* published in 1960, which I used as a gastronomic vade mecum during the political campaigns of the late 1960s and early 1970s. Of 103 places it recommends, only a dozen or so survive, four of them in New Orleans, a city immobilized by time like a shrimp in aspic. • Charlie's Cafe Exceptionale in Minneapolis (specialty: planked steak with a gazillion vegetables) is defunct. Scandia in L.A. has vanished, with its Veal Oscar, and so has Miller Bros. in Baltimore, with the terrapin that H.L. Mencken loved so much, and Luchow's and the Coach House in New York, favorites of my college years. (At the first, the thing to order was a gigantic sweet pancake, filled with cranberry jam, doused with kirsch and flamed tableside, of course, and at the second, my heart belonged to the smoky black bean soup with sherry.) • All of which is a convoluted way of saying

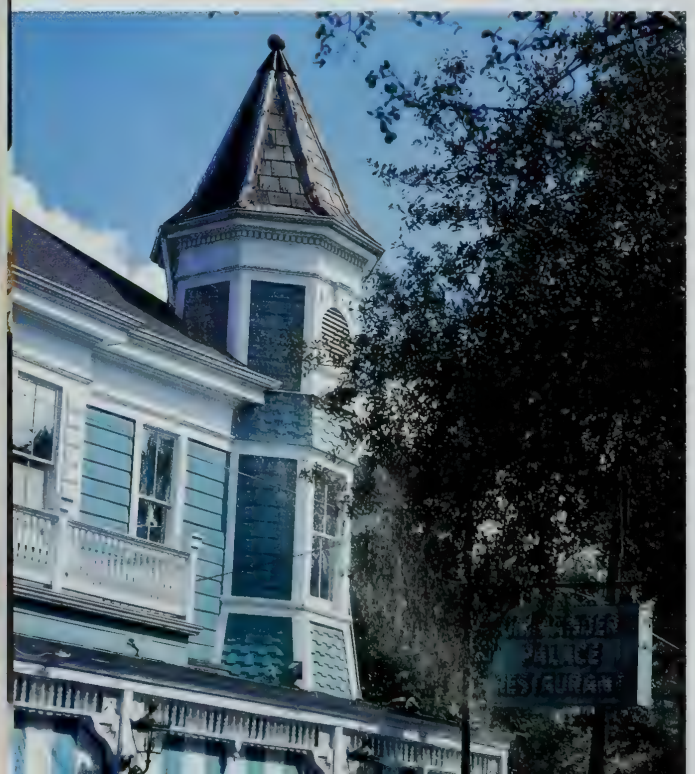
Commander's Palace, gem

that the names I'm about to whisper in your ear are perishable. These are my Top 40 in the spring of 1999. By the millennium some of them may be history; by then surely there will be new wonders to behold.

Northeast

Bob's Clam Hut, Rte. 1, Kittery, Me.; (207) 439-4233. This is roadside, seaside nirvana. All of New England's seafood fast-food masterpieces are here: blessedly unthickened clam chowder, hyper-crisp fried clams, and lobster rolls—chunks of lobster in mayonnaise, served on those special regional buns that resemble two small toasted, buttered pieces of bread, hinged together.

Hamersley's Bistro, 553 Tremont St., Boston; (617) 423-2700. My stepson was playing football for Harvard on my 60th birthday, so we celebrated here. Working in an open kitchen, wearing a Red Sox cap, Gordon Hamersley turns out relaxed, robust dishes ranging from a mushroom and garlic "sandwich" to Platonic roast chicken. Fiona, his English wife, chooses the judiciously priced wines.



Olives, 10 City Sq., Charlestown, Boston; (617) 242-19
Darkly handsome and unfailingly creative, Todd Engl
started with a storefront and built it into the city's favor
restaurant. He serves hearty bistro fare like foie gras f
with truffles and wild mushrooms and brisket with Par
esan risotto. No reservations, long waits, worth it.

New York

Aquavit, 13 W. 54th St.; (212) 307-7311. Housed in a de
converted Rockefeller town house, with casual eating
the bar and capital-D dining in the flag-draped, two-st
atrium, this is America's best Scandinavian restaura
Don't miss the herring, marinated or pickled, wh
comes with a knee-buckling shot of one of the ho
aquavits. The barely cooked salmon is sensational.

Le Bernardin, 155 W. 51st St.; (212) 489-1515. I admi
Gilbert and Maguy Le Coze's places in Paris; I adm
even more the Manhattan restaurant where Maguy c
ries on alone after Gilbert's depressingly premature de
Nobody anywhere does more sophisticated fish cookin
prime products, mostly grilled or roasted, subtly sauc
Try black bass with cabbage, or the prix fixe.

Café des Artistes, 1 W. 67th St.; (212) 877-3500,
Living National Treasure, the perfect place for s
per after the concert, ballet or opera at Lincoln Cen
Howard Chandler Christy's mildly risqué murals, d
paneling, gruff waiters, a sublime pot-au-feu and exc
tionally well-chosen small wines. George and Jenifer L
deserve a medal for keeping this show on the road.

Four Seasons, 99 E. 52nd St.; (212) 754-9494. There
no better expressions of timeless New York style than
Pool Room and Grill Room, filled with the rich, the p
erful and the wannabes. Picasso, Mies, Philip Johnson
Richard Lippold made the place an icon of modern
sign; Alex von Bidder and Julian Niccolini are peer
hosts. The food is up-to-date but never faddish.

Gramercy Tavern, 42 E. 20th St.; (212) 477-0777. W
Jean-Claude Vrinat, owner of Paris's Taillevent, ga
party for his American clients, this is where he gave it.
is widely considered the most accomplished restaura
in France, and he considers Danny Meyer his New
counterpart. Me too. Tom Colicchio's roasted saddl
rabbit with mashed potatoes suits the hearty mood.

Jean Georges, 1 Central Park West; (212) 299-3900.

Garden District

EW ORLEANS KNOWS ITS SHRIMP.

orges Vongerichten seems immune to the (con)fusion sine that infects many modern kitchens. Sweetbreads vored with carrot essence and licorice, squab paired h Moroccan spices and onion confit—the flavors are ong but the balance is perfect. Gala desserts, often ed on chocolate, bananas or pineapple.

n Domenico, 240 Central Park South; (212) 265-5959. ny May has worked tirelessly to promote fine Italian d in the United States. For this, his gleaming flagship taurant, he imports the very best Parmesan and the shest white truffles in season. The spaghetti *alla chi-ra*, the duck breast with olives and the wines, especially big Barolos, are all *comme il faut.*

Mid-Atlantic

Bec-Fin, 1523 Walnut St., Philadelphia; (215) 567-1000. orges Perrier is a classicist from Lyons, a champion of France's most distinguished gastronomic tradition. Dishes like his *galette de crabe* and warm fish mousseline are unmatched on this side of the Atlantic. If the opulent, formal dining room puts you off, visit the snug little bar downstairs; the food is almost as good.

Susanna Foo, 1512 Walnut St., Philadelphia; (215) 545-2666. Many have tried, but few have succeeded as well as Susanna Foo in blending Chinese ingredients and traditions with French finesse. Inventive dim sum and eight-treasure quail are two standouts on a lengthy menu, which includes bland and spicy, steamed, roasted and stir-fried dishes. The service is refined, and so is the room.

Inn at Little Washington, Middle & Main Sts., Washington, Va.; (540) 675-3800. Ninety minutes from Washington, D.C., in the lee of the Blue Ridge, Reinhardt Lynch and Patrick O'Connell have created a stately pleasure dome that would have wowed Kubla Khan (and cost

Ask for Mom's dumplings

THAI FOOD AT ARUN'S IN CHICAGO

him plenty). Flawless techniques are applied to local products; e.g., seared foie gras with country ham. Remarkable wines and opulent bedrooms.

Kinkead's, 2000 Pennsylvania Ave. NW, Washington, D.C.; (202) 296-7700, is my canteen. I could eat Bob Kinkead's food, especially his seafood, every night, and drink his classy wines until they locked the doors. Lobster with white beans and savoy cabbage, Thai fish soup, whole crispy snapper and brimming shellfish platters never disappoint. Discreet piano jazz helps create an easygoing mood.

South

Commander's Palace, 1403 Washington Ave., New Orleans; (504) 899-8221. Owner Ella Brennan, the doyenne of New Orleans restaurateurs, never lets Commander's, the gem of the Garden District, go stale. Jamie Shannon's haute Creole cooking ranges from seared shrimp with hot sauce and tasso (a local ham) to whole redfish or snapper baked in rock salt. Jazz brunch every weekend, with lethal Sazerac cocktails.

Galatoire's, 209 Bourbon St., New Orleans; (504) 525-2021. *La Vrai Nouvelle Orléans* lives on in Galatoire's elderly waiters, sleepy paddle-fans and tin ceilings. On the menu, too: definitive versions of trout meunière, shrimp rémoulade, crabmeat *ravigote* and bread pudding with whiskey sauce, defiantly unmodernized. No reservations except for big groups, so go for lunch early or late.

Uglesich's, 1238 Baronne St., New Orleans; (504) 523-8571. New Orleans is about good times, and no place is more fun than Uglesich's, a beat-up grocery store far from the lights of the French Quarter. Deep-fried anything is good—oysters and soft-shelled crabs, for instance—a hot sauce is applied with reckless, delicious abandon. Drink beer from the bottle, like the locals.

Elizabeth on 37th, 105 E. 37th St., Savannah, Ga.; (9 236-5547. Elizabeth Terry comes from Ohio, but her coo ing has an accent as Southern as Spanish moss. Geor products feature in dishes like stuffed Vidalia onio pecan-crusted fish cakes and grits with shrimp and r eye gravy. Her husband, Michael, a Harvard B-sch graduate, adeptly handles the wines.

Magnolia Grill, 1002 Ninth St., Durham, N.C.; (919) 2 3609. Ben Barker, a genial giant of a man, does Asian Provençal and Italian riffs on Southern tradition, prod ing dishes like soft-shell crabs in basil tempura with heirloom tomato salad. His wife, Karen, the pastry c makes something called sour cream-brown sugar cream that tastes so good it ought to be illegal.

Norman's, 21 Almeria Ave., Coral Gables, Fla.; (305) 4 6767. Norman Van Aken is the real thing. His N World cuisine, which marries foods and spices of Flo and the Caribbean, making bold use of exotic fr sometimes sounds goofy ("rhum and pepper-painted fi for example, or "Venezuelan chocolate love triangle"). it is unfailingly fresh, colorful and delectable.

Midwest

Arun's, 4156 N. Kedzie Ave., Chicago; (773) 539-1 Catch a cab to this slightly seedy neighborhood north of downtown and prepare to be dazzled—by the best food outside Bangkok, the bright, magical decor and Austrian wines that suit the complex, spicy food to Let Arun Sampanthaviavat, a charmer, order for you,

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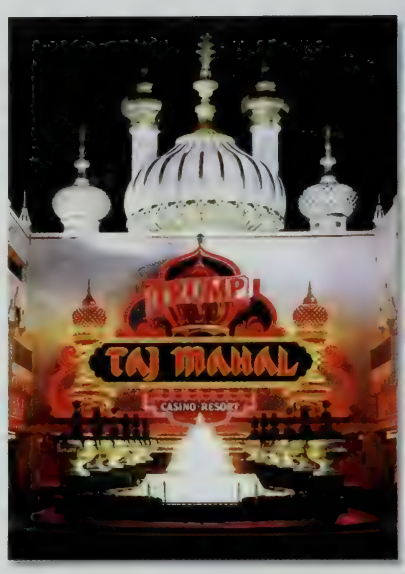

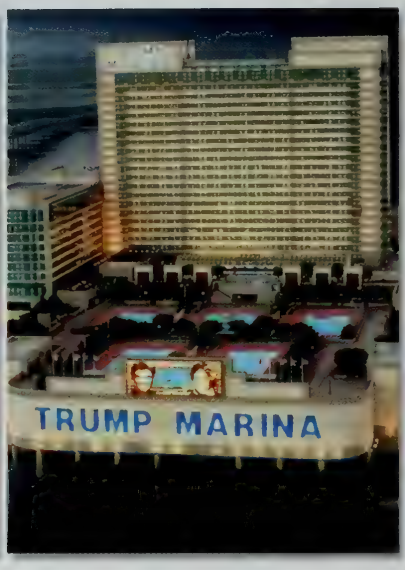

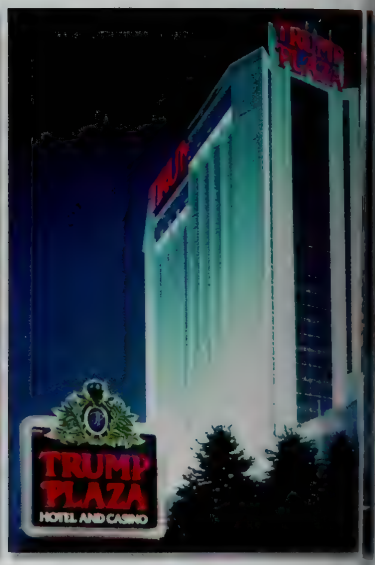

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ehold America's best cheeseburger.

I sure he includes his mother's dumplings.

erest, 440 South LaSalle St., Chicago; (312) 663-8920. n Joho, whose sparkling establishment sits 40 floors ve the Loop, breaks an iron rule of the restaurant ne: Great views and great food don't go together. satian-born, he is as much at home with Maine lobster poppyseed crêpe soufflé, and occasionally he turns out eroic *choucroute*. The Alsatian wines are unequaled.

ntera Grill, 445 North Clark St., Chicago; (312) 661-4. Rick Bayless returns to Mexico each year to re-im- rse himself in chiles and mole. You can taste it in his nningly authentic cooking. The appetizer platter icken taquitos, marlin ceviche, Mexico City-style que- illas with epazote) will give you the idea, as will tan- ine ice cream with fabulous Mexican chocolate sauce.

awingo, 9502 Lake St., Ellsworth, Mich.; (616) 588- 1. Far from the madd(en)ing crowd, Harlan Peterson rks wonders with the superb ingredients of northern chigan, including cherries, morel mushrooms and shwater fish like trout and pickerel. A former automo- e designer, he sends out plates that are artistic without ng precious. The woodsy setting is lovely.

enson's, 18 S. Hawkins Ave., Akron, Ohio; (330) 864- 6. You can take the boy out of Ohio.... Call it home- n bias, but I think this tiny drive-in, which dates back the Depression, serves the best cheeseburgers any- ere. My dad used to say that they used molasses in the e patties to help them caramelize on the grill. The buns perfect; is the cheese Cheez-Whiz?

Southwest

é Annie, 1728 Post Oak Blvd., Houston; (713) 840-1111. bert Del Grande's approach to cooking is regional, intellectual and emotional, resulting in vibrant, carefully controlled flavors. Mussel soup with cilantro and serrano chile cream and cinnamon-roasted pheasant reflect skillful marriages of tradition and innovation. Mimi, the chef's superbly fizzy wife, makes the dining room go.

Sonny Bryan's Smokehouse, 2202 Inwood Rd., Dallas; (214) 357-7120. So you stand in the cafeteria line, maybe behind a matron in blue jeans, diamonds and mink, and fill your plate with brisket and french fries. You carry it back to a rickety old schoolhouse desk, along with a beaker of sweet iced tea, and douse the slow-cooked beef with sauce, hot or mild. You smile. Hell, you rejoice.

Star Canyon, The Centrum, 3102 Oak Lawn Blvd., Dallas; (214) 520-7827. For my money, Stephan Pyles is Dallas' premier chef. He refines the Tex-Mex tradition in his tamale tart with roast garlic custard, celebrates the cowboy tradition in his classic rib-eye steak and evokes the Texas fondness for self-indulgence in his peanut butter cake. A well-honed technique underlies the fireworks.

West

Wild Ginger, 1400 Western Ave., Seattle; (206) 623-4450. In a bare-wood setting, the gifted Jeem Han Lock turns out a true pan-Asian cuisine, ranging from Cambodian barbecued prawns to Penang beef curry. Each flavor and national culinary tradition comes through loud and clear, with no reaching for sensation. Cantonese restraint and Thai exuberance are both well served.

Sam Choy's, 73-5576 Kauhola St., Kailua-Kona, Hawaii; (808) 326-1545. Sam Choy, a mountain of a man, knows Pacific fish like few others, and he knows how to handle them, too. His fried poke sandwich is a model, as is his grilled big-eye tuna. The methods are simple and reliant

The suits just love this place

Fish 'n' chips at Tadich Grill, San Francisco

for their success on absolute freshness of raw materials; the setting and presentation are equally unadorned.

Roy's, 6600 Kalanianaole Highway, Honolulu, Hawaii; (808) 396-7697. Out near Diamond Head, Roy Yamaguchi blends Hawaiian, Asian and European influences with great results. Blackened ahi in soy mustard sauce, for example, is rich, spicy and salty at the same time. This prince of Pacific Rim cuisine has outposts all over the place.

California

Cafe Japengo, The Aventine, 8960 University Center Lane, San Diego; (619) 450-3355. Improbably situated next to a suburban hotel, high-tech to a fault, Cafe Japengo demonstrates what fusion cuisine can achieve. Pot-stickers to die for, Westernized sushi and succulent products of the wood-oven provide the gastronomic substance.

Campton Place, 340 Stockton St., San Francisco; (415) 955-5555. There's a small hotel...with a perfect dining room. Go for the French toast at breakfast or, at dinner, try Todd Humphries' beatific braised short ribs with pureed potatoes or sea bass with caramelized endive.

Chez Panisse, 1517 Shattuck Ave., Berkeley; (510) 548-5525. Much of what American restaurants have achieved in the last 25 years they owe to Alice Waters. It was she who first developed a network of small farmers to supply her needs, emulating French provincial chefs, and she who created modern classics like baked goat cheese on greens. Set meals downstairs, à la carte upstairs.

French Laundry, 6640 Washington St., Yountville; (707) 944-2380. My colleague Ruth Reichl calls this the country's best restaurant, and I wouldn't argue much. Thomas Keller can cook anything and make you take notice. He likes to have fun with food—he calls one specialty tongue and cheek—but his meltingly tender lamb *persillade* a dessert spectaculars are no joke.

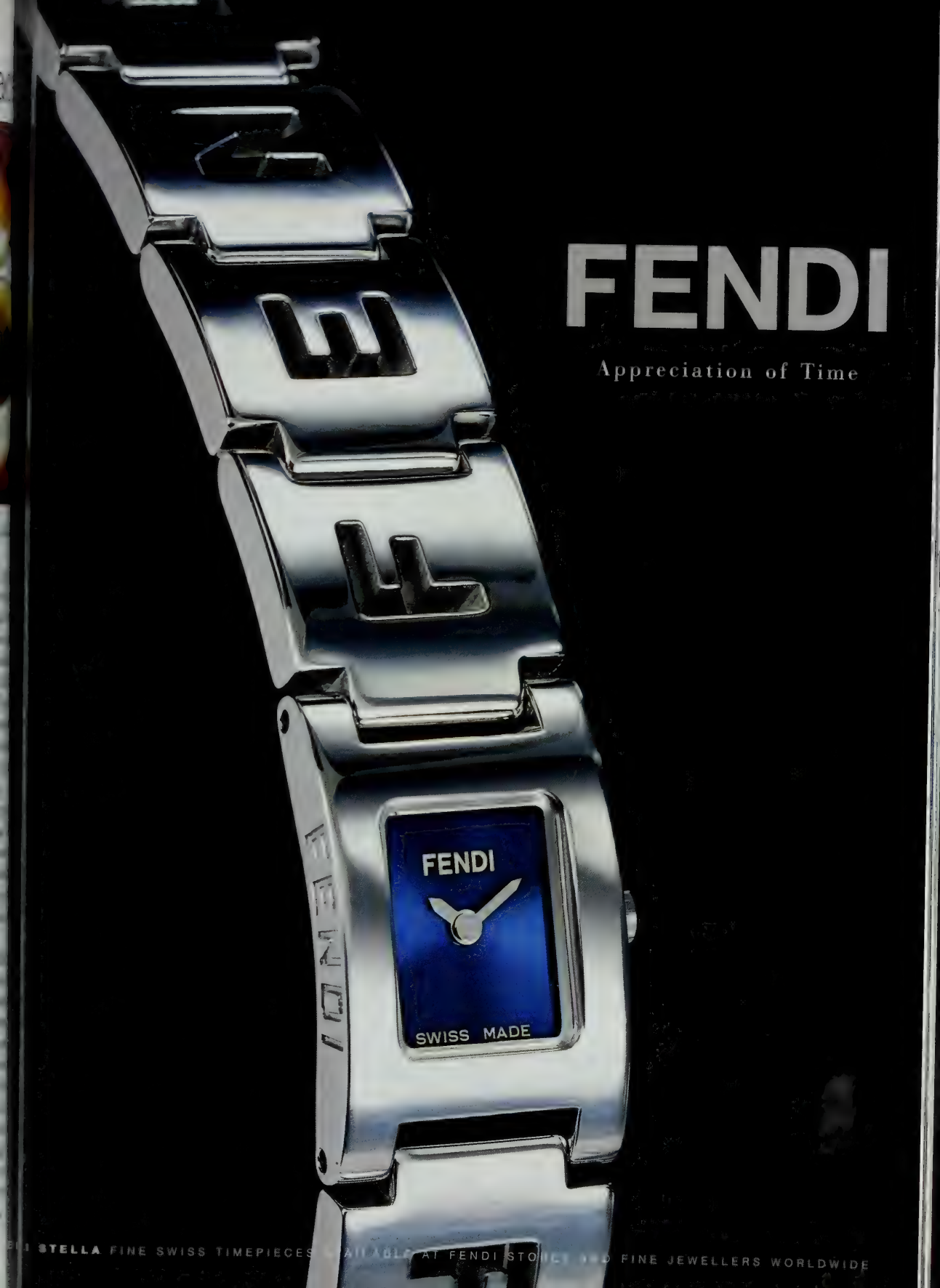
Tadich Grill, 240 California St., San Francisco; (415) 3 1849. There are booths for the self-effacing, but the pla to sit is the enormous U-shaped counter. Tadich's ser peerless grilled and sautéed fish—sand dabs, rex sole a petrale are the best—with tartar sauce on the side. T suits love the place, so take a late lunch and avoid the lin

Chinois on Main, 2709 Main St., Santa Monica; (310) 3 9025. Wolfgang Puck, and his restaurants, are everywhe yet the consistency at this brilliant restaurant never v vers. Shanghai lobster with spicy ginger curry sauce, an novation two decades ago, tastes as fresh as ever.

Ginza Sushiko, 218 Via Rodeo, Beverly Hills; (310) 2 8939. Forget what you eat at your local sushi bar. W Masa Takayama prepares for a handful of guests e night comes from a different planet. The toro is fatter, urchins sweeter. And the potentially lethal fugu (fle then skin, aspic, liver) are indescribably delicious. Br serious money; it costs $500 for two.

Matsuhisa, 129 N. La Cienega Blvd., Beverly Hills; (3 659-9639. This is where it all started. Japan-born, Pe trained, Nobu Matsuhisa perfected his individualistic s in this humble-looking spot before dazzling New Y and London. I'm still stunned by dishes like new-s (slightly cooked) sashimi and a whole repertoire morsels from the sea underutilized by everyone else.

Valentino, 3115 W. Pico Blvd., Santa Monica; (310) 8 4313. This is the best Italian restaurant in the country, no one tops Piero Selvaggio as a host. Depending on season, he will recommend a scintillating pasta, or ma porcini mushrooms or freschissima fruit. The earthqu decimated a great cellar, but it has been rebuilt. •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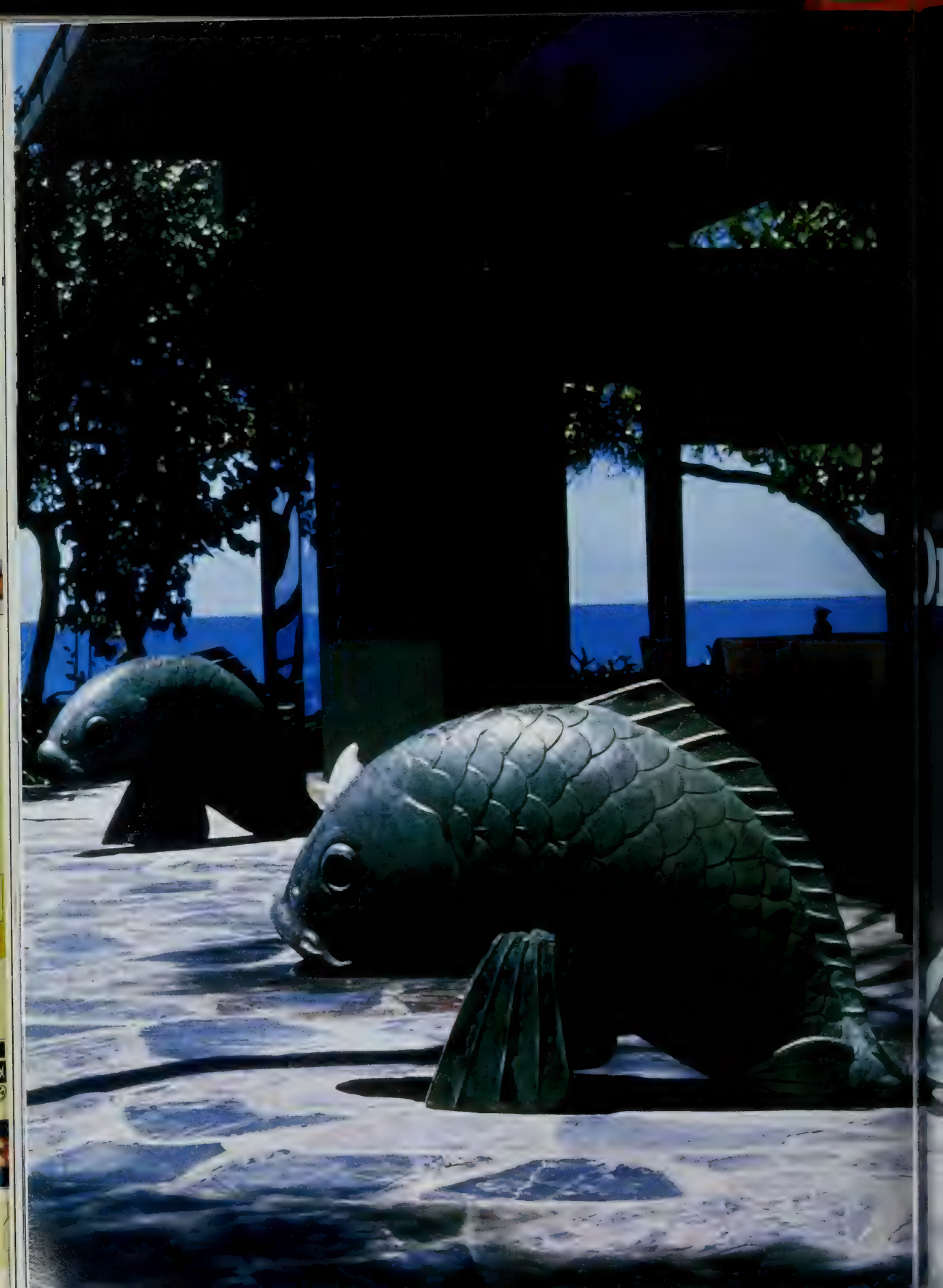


Hawaii's Mauna Kea Beach Hotel is an aesthete's paradise.

We'll Leave the Volcano On for You

By John Tierney

FROM A DISTANCE IT LOOKS LIKE A TYPICAL modern Hawaiian resort, another heap of concrete by the water. It's not until you enter the Mauna Kea Beach Hotel that you understand its mystique. You look down from the terrace to see a perfect crescent of sand and palm trees: the Platonic ideal of a beach, the sight that inspired Laurance Rockefeller back in 1960, when he toured the islands with state officials who were trying to start a tourist industry beyond Waikiki Beach. They offered Rockefeller his pick of coastlines, and he settled on this remote spot next to a desert of black lava on the Big Island's northwest coast. It had no roads, no grass, no water—nothing except the beach, but that was enough.

Rockefeller, who was using his family's money and his patrician tastes to build hotels called Rockresorts, opened the Mauna Kea in 1965. Skeptics called it a white elephant—who would pay so much to go so far?—but it became a favorite among the jet set. Eventually other hotels opened along the coast, and the Mauna Kea lost some of its appeal as it changed owners and aged. In 1994, it was closed for renovations that lasted two years. The new Japanese owners have restored many of Rockefellers' touches, and the result is a modern hotel with a rare quality in beach resorts: patina. You sense it partly in the architecture—by now the 1960s atrium and cantilevered lounges have a pleasant vintage feel, a bit like a Frank Lloyd Wright creation—but you especially find it in the objects displayed in the halls and lobbies of the resort.

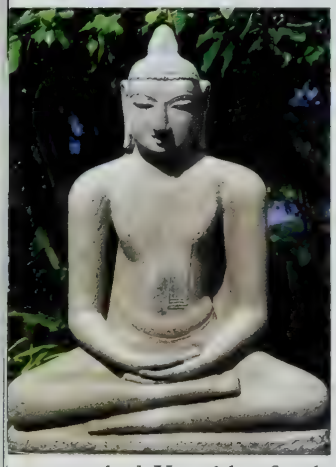
They are the kind of objects that you normally expect to see only in the company of a uniformed guard who keeps saying, "Please step back from the art." Thanks to Rockefeller, the Mauna Kea is endowed with one of the world's finest collections of Asian and Pacific art: statues, paintings, tapestries, canoes, drums, screens and assorted oddities. The tone is established nicely at the front entrance, which is flanked by exquisite bronze statues, covered with gold leaf and inlaid mirrored glass, from 18th-century Bangkok. Each of the figures is a kneeling Buddhist disciple. Once you enter the hotel, you find the object of the veneration sitting cross-legged in a garden underneath a fig tree: a six-foot-high granite statue of the Buddha himself, carved in southern India 13 centuries ago.

This statue is the most valuable object in the art collection and the spiritual centerpiece of the hotel. Often you'll see flowers or fruit resting in the hands of the meditating Buddha, offerings placed by guests who have come to appreciate the moment of great enlightenment depicted in the statue. At first, I grant you, it may be difficult to imagine a close link between

the philosophy of Buddha and the philosophy of guests at a luxury resort. You may recall that the Buddha was a wealthy young prince who renounced all worldly luxuries. But after seven years of asceticism, he decided that material deprivation was useless too. Meditating under a fig tree, he discovered that the key to happiness is to follow the eightfold path, a code of right thought and right action that will enable you to eliminate the desires that cause suffering.

After a day meditating under a beach umbrella at the Mauna Kea, I began to understand the serene expression on the Buddha's face. I read a little about the Buddha's eightfold path, and I decided that the Mauna Kea fulfilled all eight of the steps he prescribed:

Right ASPIRATIONS The Mauna Kea shapes the proper ambitions. You arrive with intentions to visit the famous sights of the Big Island: the waterfalls in the tropical rain forests; the *paniolos* (Hawaiian cowboys) roaming the 225,000-acre Parker Ranch; the hot lava flowing to the sea from vents in the Kilauea volcano. But once you reach the seclusion of the Mauna Kea, your aspirations change. You might still decide to take a helicopter ride over to the volcano, but you don't feel obliged to venture anywhere beyond the resort. Its 1,839 acres are enough. You aspire merely to relax.



Right VIEWS The absolutely correct view is from the deluxe rooms facing the ocean, each with a balcony that gives you the feeling of being suspended over the water. But even the other views aren't bad. You either face lush gardens or the 13,796-foot-high snowcapped peak of Mauna Kea (which means "white mountain"), and you feel blessedly distant from civilization (including the other hotels hidden down the coast).

Right SPEECH Everything seems to be a little quieter in these parts. As you drive up the coast from the Keahole Kona airport to the hotel, in the black lava desert next to the road you see ecologically correct graffiti: white rocks stacked to form a polite, nonpermanent record. The hotel staff prides itself on subdued discretion—the management makes a point of not naming celebrities who have stayed there—and eventually the attitude seems to affect even guests from New York. You can find investment bankers speaking as softly as the natives. And somehow the golfers who have to deal with the Mauna Kea's third hole—a tee shot over the ocean to reach the green—usually manage to keep their voices down.

Right CONDUCT You can play tennis near the ocean, ride horses in the upcountry pastures of the Parker Ranch and play golf on two verdant courses carved out of a 5,000-year-old lav flow. Surfers and boogie-boarders will find most excelle waves crashing onto the beach. A stickler for right condu might be disappointed at the gym facilities—a few exercis bicycles and other basics—but you can always use the sp and fitness center in the big new sister hotel down the roa

Right EFFORT You don't have to do anything except sign yo name on the checks and help yourself to the buffets in th pavilion restaurant overlooking the ocean. (One saluta effect of the Japanese influx: The breakfast buffet featur miso soup, which is better than you might imagine at th hour.) The staff will handle everything else, whether yo want a sandwich on the beach, a cocktail in the hot tub, exhibition of hula dancing, or a blend of Euro and Asi cuisine in the hotel's formal restaurant, Batik.

Right MINDFULNESS Like Rockefeller, the hotel's new ma agers have paid attention to the details, from the craft wicker chairs on the balconies to the myna birds singing the courtyards. The artwork is deftly placed. Bronze drun from the Far East serve as end tables in the lobby; tw wooden horses carved as temple offerings for the childr of 18th-century Japanese aristocrats are outside the g shops, where 20th-century parents seek offerings for th children. As you sip a drink from the hotel's Copper B you can contemplate masks used in New Guinean init tion rituals involving scarification and circumcision—a you can guess that the people wearing those masks w probably sipping a fair quantity of alcohol themselves.

Right CONTEMPLATION In Rockefeller's day the Mauna K was a retreat without televisions in the guestrooms. Toda has TVs in all the rooms, but the staff will remove the t if you ask. You can sit on the balcony and contemplate important things in life, such as the whales that like to w gle their tails offshore. And you will probably not be gre distracted by stormy weather, because Rockefeller put hotel in a desert that gets only 10 inches of rain a year.

Right LIVELIHOOD This is the tricky part of the eightfold p A stay at the Mauna Kea may tempt you to give up y livelihood altogether: Who wants to go back to the offi But as you contemplate the prospect of staying on the Island, you will not be able to avoid noticing that there certain expenses involved. Hawaii is not cheap. So at end of your contemplation you will probably decide t the right livelihood is one that enables you to make eno money to afford another stay at the Mauna Kea. T means, of course, that you'd better go back to the off But at least you'll go back enlightened. •

Mauna Kea Beach Hotel: guest rooms $325–$1,250/double o pancy; (800) 882-6060, (800) WESTIN1; fax (808) 880-3 www.maunakeabeachhotel.com

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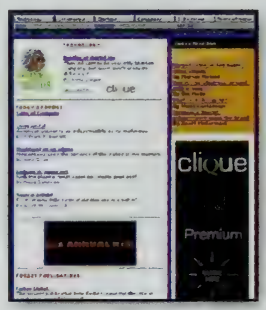

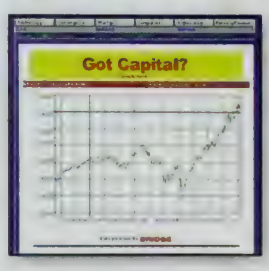

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FOR DECADES, KEEPING A DECENT photographic record of your travels meant lugging along a camera that packed down—with assorted lenses and accessories—into a bag large enough to require its own porter. Today, however, it's by no means the big boxes that always take the best pictures. Here are a few of our favorites compacts.

Among the smallest and most trendy of all the new models is the **Canon Elph 370Z**, *above right,* the same camera the stars carry in their trembling fingers when they attend the Academy Awards ceremony. Like many of the compacts, the Elph uses the new Advanced Photo System (APS) film technology (unlike conventional 35 mm, you don't touch the film and you can change the format in mid-roll). $500. (800) OKCANON.

The **Olympus *i* Zoom 75**, *right,* is perhaps the most ergonomically satisfactory of all the little cameras. Also the most esthetically pleasing, with its Champagne-gold exterior. Producing this camera is like pulling out a gold, monogrammed cigarette case at the roulette table. $454. (800) 622-6372.

The **Leica Minilux Zoom**, *below,* isn't the most miniature of all the minis, but, hey, it's a Leica. It shoots conventional 35 mm with a 35-70 mm lens, and the result is pure magic. $995. (800) 222-0118.

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PHOTOGRAPHS BY RON REEVES

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The Nikon Pronea S, *left*, employs the best features of both Single Lens Reflex and Advanced Photo System technology. And, because of its size, it has the feel of point-and-shoot. You focus through the lens—which always makes for better pictures—and the camera will handle a range of interchangeable Nikon lenses. This one won't fit in your shirt pocket, but it will ride nicely in a small waist pack. $520. (800) 645-6687.

The Minolta Vectis 300 Beam, *above left*, is small enough that it might get lost in a shirt pocket. But it is no toy. The body is rugged stainless steel and the controls are ergonomically designed so your fingers seem to go where they need to in spite of the camera's size. The lens zooms from 24 mm (wide for a point-and-shoot) to 70 mm. The Beam can handle subjects as close as 16 inches. Auto-focus with various flash options (flash fill, night portrait, etc.) makes it the ideal tool for weddings, company picnics and other occasions when you would like to take a few pictures while keeping your hands free, most of the time, for hugs, toasts and other eventualities. $349. (201) 825-4000. •

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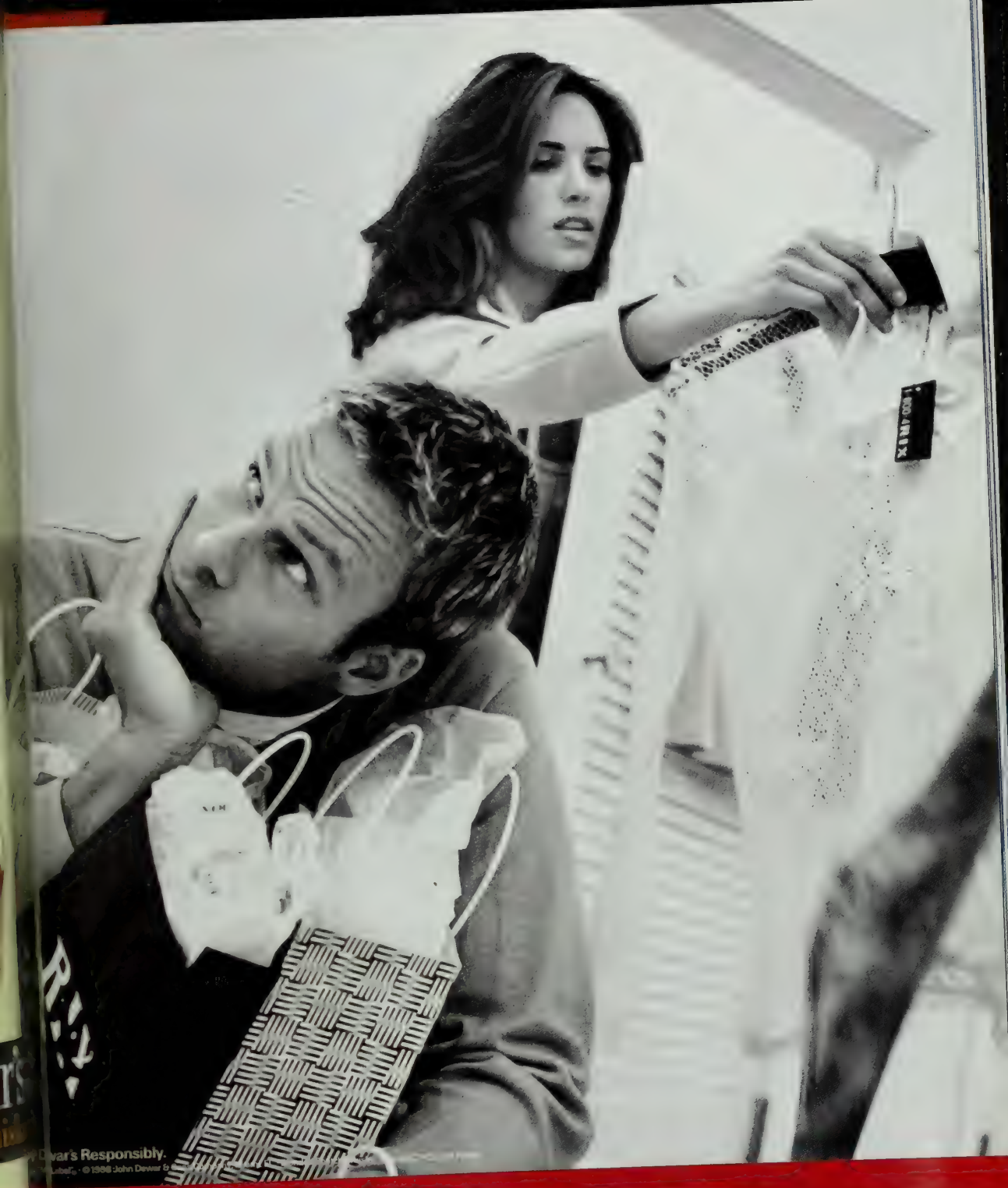
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All prices approximate, for details, see last page. Cotton dress, $860, patent leather bag, $435, and shoes, $340, by Louis Vuitton. *Opposite, left to right:* green cotton-and-cashmere sweater, $1,100, and cotton pants, $395; grey cotton-and-cashmere sweater, $1,100, and cotton pants, $385; black cashmere sweater, $1,300, and cotton pants, $325; all by Marc Jacobs. Shoes, *left to right:* A. Testoni, $385; Johnston & Murphy, $165; and Sebago, $140.

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Cotton windbreaker, $360, vest, $425, and T-shirt, $150, by John Bartlett. *Opposite:* Cashmere-and-silk tank top by Ralph Lauren Collection. $325. Cotton pants by John Bartlett. $565. Boots by Dr. Martens Air Wair. $140. Hair by Dennis DeVoy for Garren New York. Makeup by Lea Siegel for Marek & Associates.

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There's a

With calm waters and some of the most beautiful scenery on the seas, Norway's *Hurtigruten* is the only

By Neal Santelmann

In Your Future

BREATHE DEEP. THE SHARP SNAP OF SALT WATER AND FISH SLIME. SUN-STROKED BARNACLES and wind-blown algae. Oil-stained cement and greasy, belching trawlers. Squawking seagulls and their tangy, staining residue. • Ah, the Norwegian fishing village in all its crusty pungency. It's part of the charm—yes, charm—of cruising on the *Hurtigruten*, Norway's venerable coastal steamer line. In a travel genre dominated by glitz and "eco-friendly" adventure, the *Hurtigruten*—the word means "fast route"—is a healthy and relaxing dose of Norse reality, to say nothing of some of the most beautiful scenery on the seas. • Marketed in the U.S. by Bergen Line as the Norwegian Coastal Voyage, the *Hurtigruten* has been chopping the craggy coast of Norway since 1893, when a young steamship company began regular, year-round runs through the dicey waters between Trondheim and Hammerfest. The service opened up numerous tiny, isolated ports along the way, cutting weeks or even months off overland shipping and transportation. These days the route takes 12 days from Bergen to Kirkenes and back again, with ships hauling cargo, mail, cars and passengers, and calling at 34 ports each way. Many vacationers go round-trip, since much of what one misses during the night one way can be seen in daylight on the voyage back.

I boarded the *Richard With,* one of the *Hurtigruten*'s largest ships, in Kirkenes, a northern mining town just miles from the Russian border. Not the prettiest part of Norway, perhaps. And certainly a slow start for the cruise, with an hour's delay during the first call at Vadso, the homeliest dock I'd ever seen. There followed long stretches of grey cliffs and barren snow-patched hills, sullen and dreary under a cold July sky, and broken only occasionally by clusters of colorful huts on the shoreline and distant flocks of seabirds.

But the cruise picked up in a hurry. The second stop was the little fishing village of Vardo, the easternmos town in Norway, With an hour to spare, I disembarke with maybe 100 passengers and took in the local fort which was built in 1737. Armed with ten cannons that hav never been fired in anger, the octagonal structure sur rounds a pretty red church and Vardo's only tree, an ol rowan that's wrapped up by soldiers each October an packed away before the winter freeze. On the walk bac to the ship I slipped down a quiet side street of brightl colored wooden houses. At the dock I stood listenin to the creaking pilings, examined a weathered trawle and spent a half dozen photograph on the buildings and stumpy fishin boats that lined the harbor.

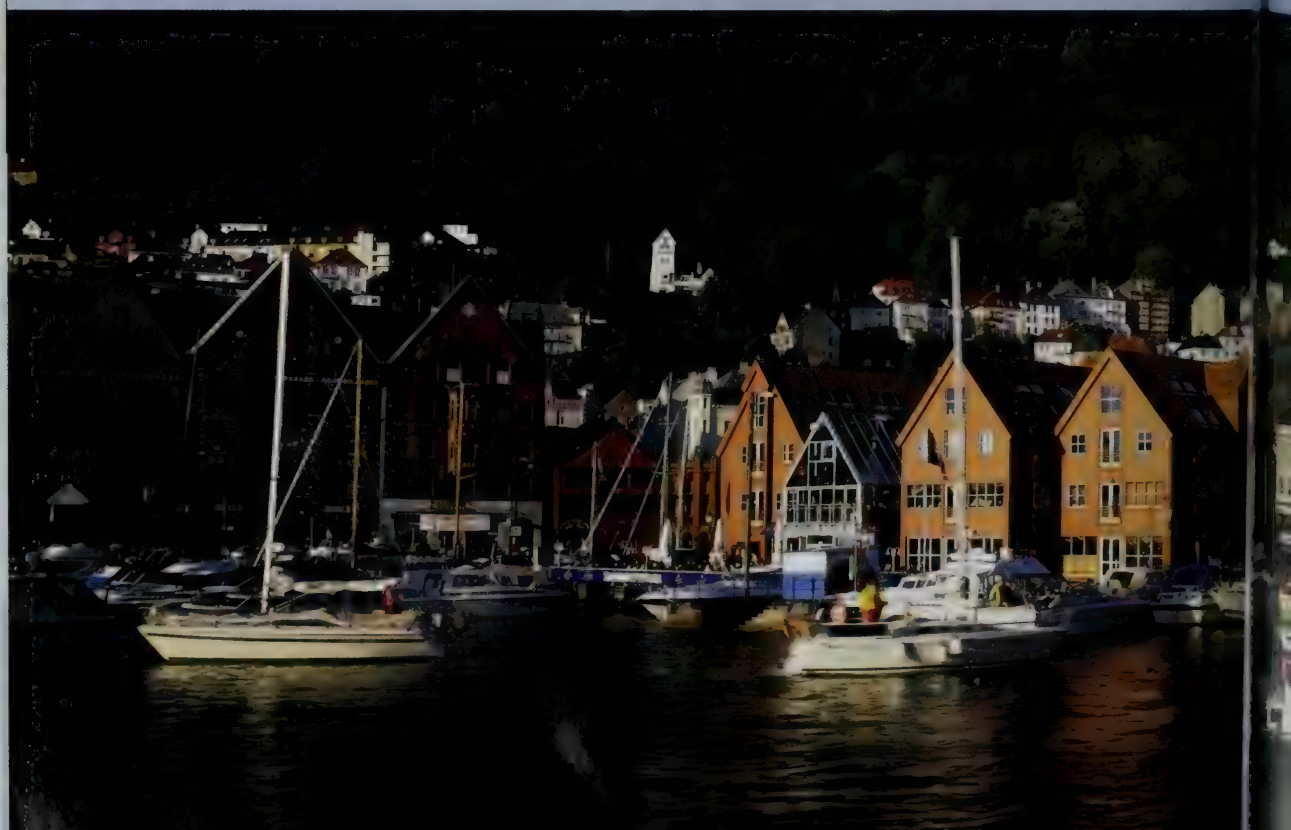
This little harbor was why I'd chose the *Hurtigruten* in the first place. Th big cruise ships that ply Norway coast—and there are many—don't sto at towns like Vardo. Most can't fit the small docks, nor would their pas sengers likely be interested if they coul

And so I sat tight on the deck on th way into Batsfjord, engrossed by hug striped sandstone cliffs that had bee molded and folded by the movement the ages. Near Berlevag, I stood on th bow watching the cold midnight su fail to set yet again. At the pretty harb

The *Hurtigruten*'s fleet includes 11 ships, from the workaday 2,500-ton *Harald Jarl* (1960) to six 11,000-plus tonners built in this decade. Dilemma: Everyone I spoke with aboard the *Richard With* (1993) said they would have preferred one of the older boats. As one Norwegian put it: "They have soul." Ja, and a lot less deck space. Your choice.

Accommodations aboard the *Richard With* are nice enough. Cabins have fold-down beds, private baths, closet and desk space, and curtains thick enough to keep out the midnight sun. Meal time was a highlight, with huge, all-you-can-eat breakfast and lunch buffets. Dinner was less interesting—even the Norwegians, it seems, haven't mastered the art of steak for 490. Wine and spirits are extra.

Though Norwegians use the line to travel town to town, many tourists go Bergen to Bergen, the whole 12 days. High season (May to September) per-person cost: $1,162-$4,133, including meals and accommodations, but not excursions. For Bergen to Kirkenes (seven days): $758-$2,688. For Kirkenes to Bergen (six days): $642-$2,275. Bergen Line: (800) 323-7436; fax: (212) 319-1390. For brochures only: (800) 666-2374.



Havoysund, I made a quick dash to a general store. In ammerfest, I wandered through the streets past color- l houses and more than a few Nordic beauties who fused to smile back. In Tromso—the "Paris of the orth"—I window-shopped around the harbor in the ilight of 1 a.m. At charming little Rorvik, where south- und and northbound *Hurtigruten* steamers always eet, I lost myself in the crowd of a street fair. Near onnoysund I was back on the bow again, angling for a cent photo of Torghatten—the mountain with an oded hole through its heart.

So it went up, around and then down the coast, the lit- ports and the magnificent scenery surrounding them. here wasn't always time to walk around, and only a few wns offered much in the way of anything to buy or do. t so what? I felt richer for having seen them up close. d for any passenger who wanted more, there were ex- rsions available: to the Russian border near Kirkenes, e North Cape, the Nidaros Cathedral at Trondheim, er Tromso by cable car...to name a few.

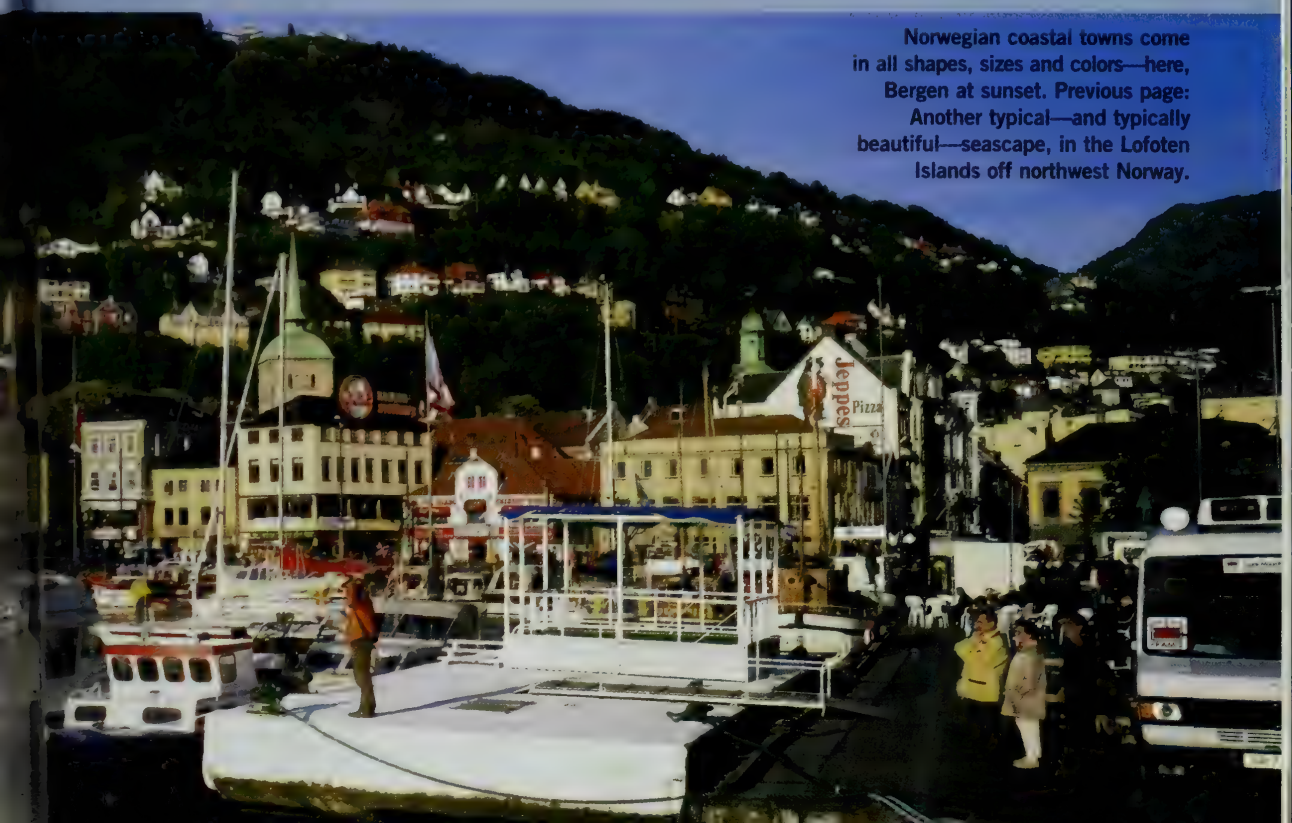
The *Richard With* got busier after Hammerfest. Lots day-trippers hanging around on the snack bar deck, tching television and drinking beer and *kaffe*. No prob- n. By then I was spending all my time outside anyway, nning myself on deck chairs under the shadows of w-topped mountains. Countless mountains—some ooth, some sharp as nails—rising straight from the oreline, and as far inland as I could see. And fjords—lots of fjords. Funny things would happen, I noticed, when the ship entered a fjord. Awed by the majestic beauty, passengers would get quiet, start whispering and walk around on their tip-toes. Eyes would turn bright. Faces would beam. Great therapy.

The route passed through a number of these stunners, especially during the last day and a half above the Arctic Circle. Most memorable was the 12-mile-long Raftsundet Fjord south of Stokmarknes and its famous adjoining Troll Fjord where, in 1880, fishermen in oar-driven sailboats waged a bloody, pitched battle against those in steam-driven boats. Resplendent green mountains, narrow walls, aquamarine pools and tumbling waterfalls—gorgeous.

Eventually the seashore rounded out again, the mountains and caverns fading into islands and islets, the ruggedness into farmland and grass. Still, the sea remained calm, and I was just a bit disappointed at never having needed the Scopolamine I'd brought along.

The *Richard With* was a sell-out on my cruise, as is usually the case during Norway's short summer of long light and tolerable temperatures. Europeans, mostly, with a smattering of Americans. "Ah, the air is wonderful, clean," a southern Californian told me on deck the last morning, sipping air through his nostrils as he nursed a cigarette. He'd come to relax under the scenery, and seemed to have accomplished it.

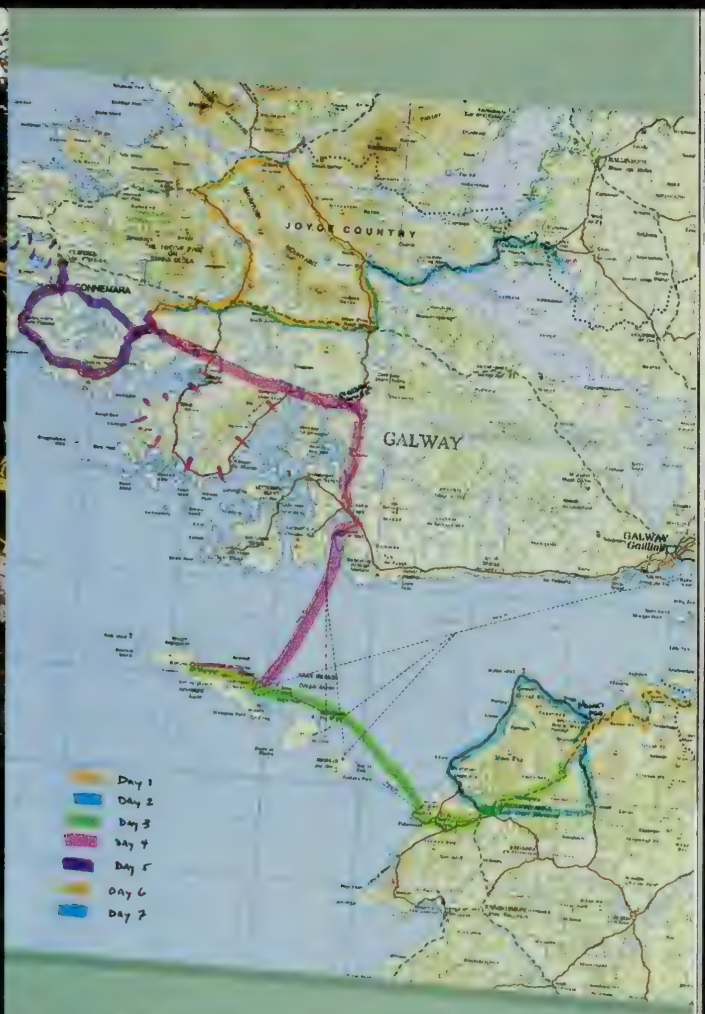
I had, too. •



Norwegian coastal towns come in all shapes, sizes and colors—here, Bergen at sunset. Previous page: Another typical—and typically beautiful—seascape, in the Lofoten Islands off northwest Norway.

May The Road Undulate Up To Meet You

By Christopher Buckle



n which the author bicycles 220 miles through the vest of Ireland, falls in love, eats and drinks too much, oses weight and discovers the joys of Butt Balm.

' WAS RAINING OUTSIDE THE DUBLIN AIRPORT, AND AS I ood in the taxi line getting soaked, I congratulated my- lf for booking a one-week bicycle ride in a country un- lebrated throughout the world for its aridity. But the in lifted by the time I got to Heuston Station for the ain to Galway, which pulled out at the prick of five, with lussolinian punctuality. The train that brings John 'ayne home in *The Quiet Man* is three hours late. ● The xt morning the nearly 20 of us gather in the lobby of the reat Southern Railway Hotel. We range in age from rty-something to sixty-something. We are all accompanied by our spouses, except for myself, who is traveling with my buddy Tom. We appear to be mainly Canadian, which ensures that 90% of the sentences spoken during the next week will end in "Eh?" We include a Toronto maxillofacial surgeon, a mutual fund manager turned gentleman farmer, an owner of newspaper printing presses and a Hall of Fame pitcher. ● We are friendly. This seems to be a characteristic of people who sign on for bicycle trips. Type A's, masters of the universe, people who bray loudly and interminably into cell phones while sitting next to you on a crowded train tend not to go on bicycle trips, especially in Ireland, where the day's highlight might be a lecture about bogs. I've also come to the conclusion that a bicycle trip—especially one organized and guided by the superb Butterfield & Robinson company of Toronto—may be the best way to experience a country. ● On a bicycle, the landscape goes by at just the right pace. You can

Why, given their horrible history, are the Iris so bloody nice? Could it be the Guinness?

smell it, hear it, feel it. Boy, how you feel it. Even now, I whimper at the phrase "gently undulates." This is the euphemism, the spin, that our guides, our lovely guides, would use to prepare us for some grisly, Himalayan ascent: For the next 20 kilometers, the road will gently undulate.

"This road," I would gasp to Tom, "it is...[expletive deleted] gently...undulating...again." (Actually, Ireland was not an arduous pedal. A friend of mine took his new bride on a bicycle trip in Switzerland and nearly came back divorced.)

There's this to be said for bicycling: that wonderful feeling of triumph, at the end of a 60-mile day, of pumping up the driveway of your hotel, feeling like a bantam cock, knowing that you can with caloric impunity drink every pint of Guinness on the premises. You have earned them! Next morning at breakfast you can stuff yourself like a capon, with bangers, eggs, kippers, salmon, porridge, toast, jams, fruit, yogurt. More eggs! More bacon! You need your nourishment. You are a machine, a road warrior! (Even if you do look like a silly in those butt-hugging Spandex knee-pants and alien mushroom helmet. Want to look like a dork in an Irish pub? Dress like a bicyclist.)

Even if you do eat like a trencherman and drink like—an Irishman?—a couple of hundred miles of gentle undulation and you'll lose weight. This is not a claim I was able to make after spending a week on a deluxe barge in Burgundy. I was mistaken by locals for an escaped stuffed goose and chased through the streets for my liver.

We are given our bikes, 24-speed custom-made Cannondales with front and rear shocks, lovely features for which your southern hemispheres will express the deepest gratitude.[1] Each morning the guides gave us detailed printed directions for the day, which we put inside a see-through plastic zippered envelope that scrolls through a loop atop your bike basket. You can navigate and steer at the same time, without colliding with one of the country's four jillion sheep or driving off a hundred-foot cliff into the same waters that once drowned the Spanish Armada. B&R's attention to every detail is masterful, all of it supervised by our two guides, whose names—Happy and Christian—were out of Bunyan's *Pilgrim's Progress.* They were attentiveness personified; almost eerily so. At one point, in the middle of nowhere, near the end of a 90-kilometer day, Tom got a flat tire. The two of us had been wrestling with it ineptly for only three minutes when Happy, blonde and smiling, hove up in the chase van, full of drinks, snacks and spare parts. While she proceeded expertly to change the tire like a one-woman pit crew, we fell like wolverines upon her stash of Cadbury and Toblerones. And they say that chivalry is dead.

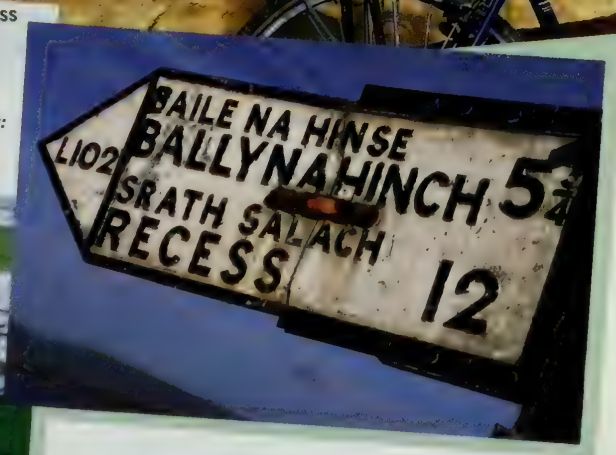
We had bright sunshine for six of the seven days. This was, apparently, unusual. "You have no idea," Christian and Happy kept repeating to us, "how lucky you are." They had led three trips so far this year, and on one of them, the sun had made only a cameo appearance. Pedaling 22c miles in zero-visibility wet is not, I confess, an experience I would seek out, much less pay money for. This being th possibility, let us pose the question: Why Ireland, whe for the same money you can have sunny France or Italy?

Well, for starters, Ireland has something the rest o Europe doesn't. The Romans never reached here. This i aboriginal, Celtic Europe. The British reached it, cer tainly, and for 800 years or so did their best to make lif intolerable. (It's hard to spend a week in Ireland withou coming away hating the Brits just a little; and my people came from the *north* of Ireland.)

Pity the Irish, poor buggers: Their golden age ended in 793, when the first dreaded redheads in horn helmets arrived from Norway. Then the English arrived in 1170, ushering in centuries of repression, massacre, penal laws and starvation. (Between 1845 and 1851, one million Irish starved to death while food was exported from the island.) That was followed by 100 years of domination by a ruthless Catholic clergy. And you thought you had a bad hair millennium? Why, given this history, are the Irish so bloody nice? Is it the Guinness? Where are my notes?

Lunch at the Monk's Pub in Ballyvaghan: Galway oysters, as briny and succulent as any that have quivered their obsequies on my tongue, followed by mussels, shrimp, smoked salmon and trout. (Tom ate so much smoked salmon on the trip that he turned pink b the end of the week and U.S. Immigration didn't want t let him back in the country.) Pedaling past roads aflan with gentian, saxifrage and cranesbill, coming upo tenth-century churches overgrown with bramble, findi a mossy baptismal font full of rainwater. An Iron Age fo luminous with moss in a glade of oak trees. Pumping ha up onto the Burren, a wild, rocky, misty landscape, ar

[1] Speaking of which, let me turn you onto something very, very good, perhaps the most useful piece of information I will be conveying here, or, anywhere: Mueller's Runner's Lube. It looks like a large Chap Stick. My marathon-running wife told me about it. It contains lubricating lanolin and anesthetizing benzocaine. On the second day, Tom was in severe distress. Runner's Lube changed his life. We nicknamed it Butt Balm and fought fiercely among ourselves each morning for right of first application. It is made by Mueller Sports Medicine, Prairie du Sac, Wisconsin; (800) 356-9522.



Left: One of the 3,248 pints of Guinness consumed by the author during his seven days in Ireland. *Right and below:* The kind of roadside detail one observes on a bicycle. *Opposite:* Don't leave home without this.

filling the druid tomb.

The lovely downhill coast into Lisdoonvarna and a lunch of Guinness and warming Irish stew at the Roadside Tavern, where the bulletin board advertised the "3rd Annual Pilgrimage of Quality to the Holy Land, Led by the Bishop of Galway." Poking about an old castle on the coast and being set on by a friendly boxer and Scotty.

Dinner with Mary Angela Keane, lovely lecturer from nearby Limerick, home of Frank McCourt, author of best-selling *Angela's Ashes*. What did Mary Angela think of the book? "He exaggerated." Imagine, an Irishman exaggerating. I tumble into bed, sleep, deep and long.

Wake up to mist, porridge and a tough grind up the aptly named Corkscrew Road to Doolin, where we caught the ferry *The Happy Hooker* to the Aran Islands. The islands are wild places where the Atlantic slams fiercely into 300-foot cliffs and people once made their living off the livers of basking sharks. Our B&B was on a site that has been occupied for over 4,000 years. The abandoned church out back was thriving a thousand years ago.

Here we were joined by Michael Gibbons, archeologist and raconteur, a lovely talker who made dull rocks sing

Left: **The 300-foot cliffs on Aran. A student was killed here the day before.** ***Below:*** **The ferry from Doolin to Aran.**

How the Irish Saved Civilization. Ireland was the onl country where Christianity arrived without bloodshe It took 11 centuries and Elizabeth I to create the fir martyrs. The faith of Saints Patrick, Brigid, Columcill and Columbanus was tolerant, joyous, forgiving, syn cretistic, mingling the animism of the *siog*, c

with history and somehow managed to make bogs interesting, even fascinating. "Twelve hundred years ago," he told us, "you could walk from here to Hungary and never be out of a day's walk of an Irish monastery. The Germans would write to the abbot and say, 'please come found one here.' The abbot would look around and send the biggest pain in the arse among his monks. So today all the revered saints in Europe were Irish the abbot was trying to get rid of."

We walked along the edge of the high cliffs where the week before a German student had slipped and fallen to his death. "His parents didn't even know he was here, poor devil." It's not just Americans who come to Ireland to find their roots.

It was to this part of Ireland, a century ago that Yeats, J.M. Synge, Douglas Hyde and others came to learn and promulgate the ancient Gaelic language, and to wage the *kulturkampf* that eventually led to the 1916 Uprising and independence. Gaelic is spoken here, not that it will do you much good. Just try to pick up a few useful phrases, such as,"Thank you." *Go raibh maith agat.* That's pronounced, "Guriv ma agoot." Ready for the subjunctive?

Michael spoke of what he calls the "dark ages" between the 1850s and 1950, when the Catholic Church ruled. His mother has an early memory of a priest rushing into their house and smashing a record they were playing of a traditional Irish *céilí.* Priests demanded pregnancies every year, and threatened hell for contraception. The resulting large families were at the mercy of unlovely British landlords.

"We always had an easy relationship with God, and that is now coming back, thanks be to God," Michael said, plucking at a nettle. It's a point Thomas Cahill makes in spirit world, with Christianity. It was the Irish who came up with the idea of private, instead of publ confession. This is all of their doctrine that was incorp rated into the Roman church. A shame, Cahill writ "How different might Catholicism be today if it had tak over the easy Irish sympathy between churchman and la man and the easy Irish attitude toward diversity, authori the role of women and the relative unimportance of sex mores." Hear, hear, but now we've reached Dun Aengu

Perched on the cliff, 300 feet above the roaring A lantic, it was built 300 years before Rome was founde about the time the Greeks were using Celts as mercen ies in their wars against the Persians. It's as wild a redou as I've ever seen. The rear is protected by the cliff. In fro is a *chevaux-de-frise,* forerunner of the modern-day ta trap, a field of sharp, waist-high stones embedded in t earth, a labyrinth of razors to halt horseborne warriors a allow Dun Aengus's protectors to come in and gut th with axes and swords.

Michael is funny on the subject of the self-defeati customs of the Celtic leadership: "One of the weaknes of the Gaelic law was that if there was no agreement who'd succeed, any relation of the chief could beco king. But no one could become king if you had a blemi So you'd gouge out your rival's eye, chop off his tongue his leg. You'd generally blemish them quite severe Then, when you were elected king, the tradition was t

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Paddy Power and his feisty ferrets.

you'd go out on an inaugural raid. So having maimed half your family, this put you at a distinct disadvantage, as you could hardly count on your relatives for support. A lot of kings were killed on those inaugural raids because the people they had to depend on were hobbling around on one leg, or blind."

On Day Four we ferried back to the mainland and pedaled among salmon and trout waters to amazing Ballynahinch castle, snuggled at the foot of Ben Lettery (of the Twelve Bens) and rising above the Owenmore river. People come from all the world over to fish for salmon and trout here, but good luck to you, according to two stout British gents who'd been here all week and had only in the last half hour caught two (fine-looking) salmon. The fishing was off in Ireland, owing to all the rain, acid from the recent forestation of pine trees, and the sea lice that breed in the salmon farms.

Still, it was so beautiful that I contemplated plunking down 90 pounds for a day just to stand in shivery water up to my callused delicates. Ballynahinch was owned in the eighteenth century by a Sir Richard Martin, "Humanity Dick," founder of the S.P.C.A. (Society for the Prevention of Cruelty to Animals), and later in the early twentieth by Maharajah Jam Sahib of Nawanagar, "Ranji," famed cricketeer and reputed lover of Isadora Duncan. More to the point, the pub was warm and full of music. One night, set to bodhran and mandolin, a dark-eyed beauty sang Yeats' "Down By the Salley Gardens":

Down by the salley gardens my love and I did meet...
She bid me take life easy, as the grass grows on the weirs;
But I was young and foolish, and now am full of tears.

Next day morning, intrigued by a sign advertising the oldest village in Ireland for sale, Tom and I encountered Paddy Power. That's a person, not a political movement, and maybe the most happily eccentric man I've ever met. Ten years ago, finding himself widowed, with a nine-year old daughter he wanted to protect from drugs, sex, and rock 'n' roll, he gave up a bowler-hatted job in marketing. He built a sailboat that looks like the dinghy on Noah's ark and sailed it to the Connemara coast, arriving in a full-blown gale. Here he planted himself, raising his daughter, horses, pigs, chickens and yellow ferrets. My most enduring visual memory of the whole trip is the ferrets attaching themselves to Paddy's cardigan by their teeth as he fed them strips of pork skin. And do you know, Tom and I were...tempted. We took down Paddy's number. Pedaling off, we rehearsed our explanations to the wives: *But honey, you'll have your own basket to gather seaweed, and eleven and a half months of mist will be marvelous for your complexion.* (If you stand a chance of explaining it to your missus, Paddy's number is (353) 95-35981. He quoted us a price for his 100 acres, eight cottages, two harbors and stream from lake to sea of 950,000 Irish pounds ($1.4 million), but I've a feeling you could get it for less. The boat's included. I don't know about the ferrets.)

To Clifden, then up, up, up the Sky Road, with a view at the top all the way to America. This is about as west as you can get in Ireland. It wasn't far from here that Alcock and Brown, the first men to fly across the Atlantic, in 1919—Lindbergh's accomplishment was to do it alone—crash-landed and sprinted to the nearest phone to claim their reward.

Next day, with already aching muscles, was our big one: 89.1 kilometers (55 miles). Through a long valley with the Bens on the left and the Maumturks on the right, along a long lough to Kylemore Abbey, now a boarding school for girls run by Benedictine nuns. As we stood there dorkily at the visitors center, a 13-year-old girl in her uniform passed, talking to her classmate in an American accent: "I want to be a lawyer, so I can sue people."

An extract from the chronology of the castle's history says it all:

1902 The castle is sold to a Mr. Zimmerman of Cleveland, who gave it to his new son-in-law, the Duke of Manchester.

1913 The Duke of Manchester mortgages the castle....

Many ungentle undulations later we hove into the little fishing village of Leenaun (where they filmed *The Field*, with Richard Harris) for our noonday Guinness, only to look up at the TV screen and see our own President being deposed. It used to be you couldn't go hor[se] anymore. Now you can't get away from it.

The Irish in the pub gathered around it for a few minutes, until he got to the part about, "That depends wh[at] you mean by sex." This produced a squall of delight laughter and everyone went back to darts and drinkin[g]. If only we were as wise as the Irish when it comes to t[he] foibles of our leaders. Well, they love the man, to be[gin] with. More than one told us, "He brought us peace." I that be said, along with all the rest.

When finally—*finally*—we got back to Ballynahin four hours later, our legs blazing, the deposition was s[till] proceeding on the television at the pub. Enough, thought, leave the poor man alone. And Tom and I what you might call staunch Republicans. Ireland w[as] rubbing off on us. Up to a point. The next day, we w[ere] informed that the paint markings on the backs of the ew[es] were made by coloring sticks harnessed to the rams, so

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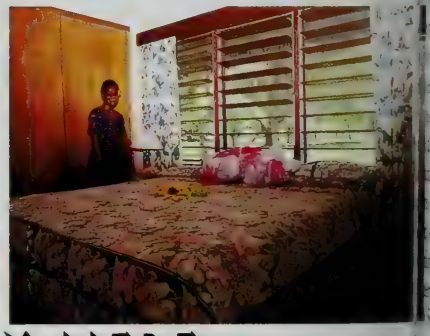

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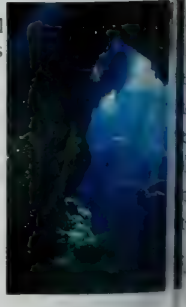

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keep track of who'd been doing what to
m. We ventured that such a system might
ractical in the current White House.
inal day: a wee 54-kilometer undulation to
g. Nothing wee about it, as it turned out:
kilometers of it uphill into a stiff headwind
gusts of biting rain in your face. But by
-afternoon we'd fetched the town, imme-
ely recognizable as the set for *The Quiet*
n. In the movie, the town is called
isfree, which comes from Yeats' poem
e Lake Isle of Innisfree":

will arise and go now, and go to Innisfree,
nd a small cabin build there, of clay and
tles made:
Nine bean-rows will I have there, a hive
he honeybee,
nd live alone in the bee-loud glade.

here was the Celtic marker past which
reen O'Hara and John Wayne whizz
heir two-seater bicycle. Cong resisted when
ctor John Ford declared his intention to shoot the
ie there in the summer of 1951. It has been living off
er since. For the first time in a week, we found our-
es jostling with tour buses and in-your-face-tourism.
did not linger long. Soon we were into the exquisite
nds of Ashford Castle, our Relais-et-Châteaux hotel.
e much of the film was shot: the opening credits,
's first sight of Mary Kate, the scene where he dips
ingers in the holy water and offers it to her, Father
ergan's losing battle with the giant salmon, the fight
Squire Danaher along the riverbank.

We left our bikes for the last time. I was surprised how
tant I was to get off, considering that both knees were
shouting, "Advil, for the love of God, Advil!" We
endless hot showers and changed into coat and tie for
Champagne cruise on misty Lough Corrib. A local
had drowned here the night before. For the second
, I heard the phrase, "poor devil." Yes, poor devil. I
k a silent toast and poured some Champagne into the
r for his ghost.

My notes, made at our last dinner in the Connaught
m, built in 1715, are hard to read. Was it the candle-
? No, let us be honest: I was with drink taken.

Filet de boeuf enveloppe delad [?] et roti en casserole
et oignons rotis.
Roti d'agneau de la montagne
Connemara garni avec une couche [?] de kidneys
et de sauce Madeira
At [ou?] le Menu de degustation...
Queues de homard de Cleggan

do remember that it tasted grand and that I hoovered
very last morsel; I dimly remember trying at one point

The pot of gold at the end of the road: Ashford Castle, in Cong.

to eat the waiter's hand.

It was boisterous in the Connaught Room, the camaraderie borne of aching muscles, free-flowing cheer and the memory of all those miles gone under our wheels, the equivalent distance of New York City to Washington. Happy and Christian dispensed gifts to us all, reflecting some quality they had perceived in each of us. The Hall of Fame pitcher rose and toasted them, saying that he and his wife Nancy—there's your clue—had been on many such bicycle trips and this had been the best and that especially went for the guides. Yes, I thought, how simpler life would be if every time you looked over your shoulder, there was Happy or Christian, smiling, following behind in a van full of chocolate, cookies and Guinness.

But Ireland, too, played its part in our happiness. Waiting for the car next morning to take me to the Galway airport and an entirely different mode of transportation from the one I'd become accustomed to, I talked with the old man who drives the horse and buggy replica of the one Sean and Mary Kate did their courting in. Until *The Quiet Man,* he said, the only people who came to stay at the hotel were English fishermen. "It was the fillum that really made it. An American, seeing it, said, 'Is that scenery real?'"

Aye, as Frank McCourt would say, 'tis. •

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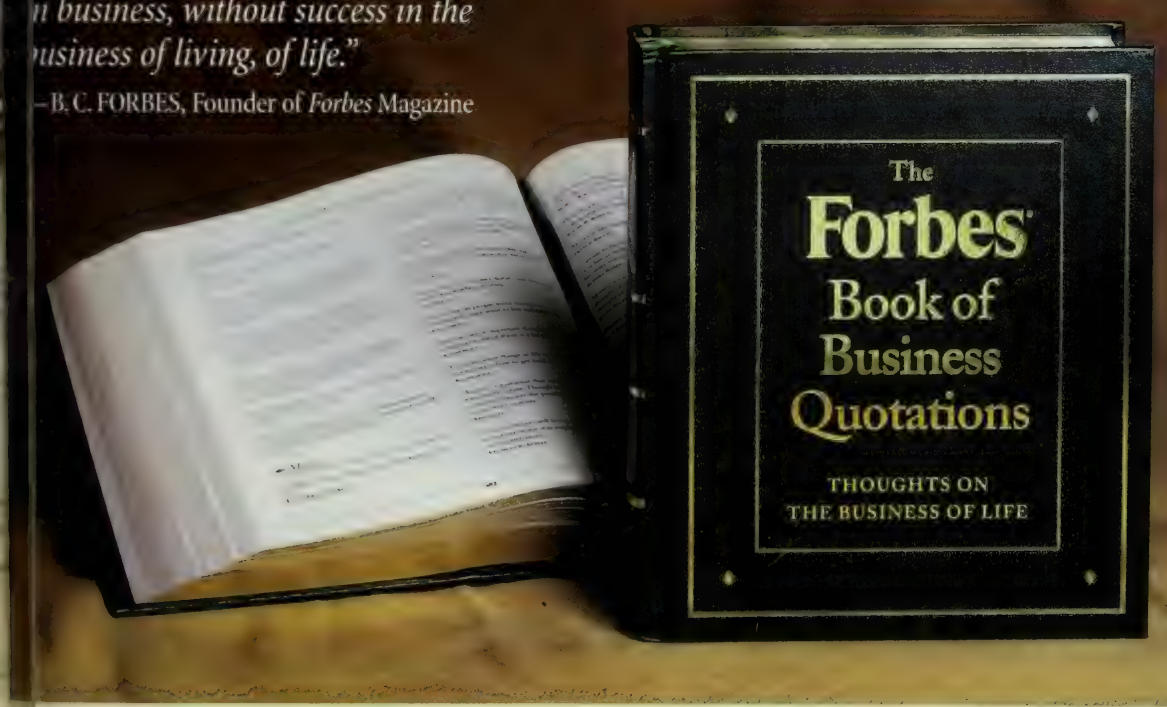

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Masterpiece Motors

Symbolic Motor Car Company is as much art gallery as auto dealership. (Either way, bring your checkbook.) By Patrick Cooke

IN A COOL, SHADED CORNER OF THE Symbolic Motor Car Company showroom in La Jolla, California, ts a timid-looking little red car. Built 1947, it is imperiously named the errari Spyder Corsa. "It's absolutely itless on the road," says Christopher enwick, wistfully. Renwick, a chatty, intly sardonic Englishman, is Symolic's marketing director and autootive historian. "Then again, speed n't what matters—this matters," he ntinues, tapping his finger on the r's identification plate: chassis 001. And the price, of course. Two milon, thereabouts."

At the upper strata of automotive quisition today there are only a ndful of cars that "matter" and many them have passed, or will, through e Symbolic seaside showroom. Curntly the fashion is for Ferraris and ewar Alfa Romeos, cars that were ilt in so limited a number and reain so artistically virtuous that they ve come to be regarded as "importnt" in much the same way as, say, e works of Renoir are important to e Impressionist collector. Symbolic otor Car is not so much a dealerip as it is a gallery—and it is a rared house indeed.

"What's the most expensive Rollsyce you could buy?—$300,000? 00,000?" asks Renwick. "That's thing. Even the most expensive guar in the world is only about a illion dollars. We're talking about rhaps *seven* million for an imporit Ferrari." Although Symbolic also eps lesser items in stock—mid-to-high six-figure collectible Bugattis, Aston Martins and Mercedes, for example—it is the boutique end of the business that makes hearts race.

Stroll through the gallery and view some of the recent holdings: You will see fairly commonplace $1.5 to $2-million Ferraris scattered about the floor, but also these: a 1958 Ferrari 250 Testa Rossa, $3.5 million; a 1963 Ferrari 250GTO, $4 million; a 1938 8C 2900 Alfa Romeo Touring Spyder, $6 million; a 1967 Ferrari 330 P3/330, $6 million...

Symbolic Motor Car was launched 14 years ago by Bernie and Marc Chase, a pair of high-strung brothers from Los Angeles afflicted with Southland car culture to the point of neurosis. One by one they bought and sold increasingly more exotic cars—Symbolic owns all of its stock and does not sell on consignment—until eventually their remarkable savvy made them the largest dealer of collectible and performance cars in the world. Steve McQueen's Ferrari 275, Elvis Presley's BMW 507, Sophia Loren's Rolls-Royce: Sooner or later the most exotic cars have ended up with the Chase brothers.

And who is their typical client? "We have a core of about a dozen customers in Europe, Asia and the Middle East," says Renwick, adding that sometimes a client will buy a car, own it for a time, then sell it without ever seeing the car or its ever leaving the showroom. The newest type of buyers are what Renwick calls the Microsoft Kids. "They're young guys, often in their early 30s, who've cashed

out of a Silicon Valley start-up for a hundred, maybe two hundred million bucks. What's a $3 million car? Nothing. Many of them are engineers so they appreciate the mechanics, and some even race them in vintage meets. After years toiling in obscurity, a three-million-dollar classic car allows them to be the center of attention. You could call it the revenge of the nerds."

It's difficult for even the most dedicated aesthete to hover around these masterpieces without eventually blurting out the question, *So what kind of an investment return we lookin' at on a three mil Ferrari?* This is the one unfortunate query, however, that causes the sales staff at Symbolic to avert their eyes, for once you've asked it you've proven yourself hopelessly out of your depth. "I've never known a client to borrow at the bank to buy one of our cars," says Renwick, which is a kind way of saying: *Unlike you, these people can afford to tie up three million in a garage space.*

"The investment aspect is not an enlightened approach to these cars," Renwick insists, "and we don't promote speculation. If you hold on to one thinking it will go up in price you're only asking for trouble. Besides, our clients are prudent enough to know that the exotic car market has been no better than stable over the past four years."

"I've never known a client to borrow at the bank to buy one of our cars," says Renwick, which is a kind way of saying: *Unlike you, these people can afford to tie up three million in a garage space.*

No, you must love the car. Period. "It's honestly been my experience that people who come to us buy for the same reason they buy any work of art, because they love to acquire beauty."

Renwick, who is compiling a database of all the cars in the world over $500,000 worth having, reports that a Mercedes Grand Prix recently sold in Germany for $15 million, about the ceiling for what the market will bear in a worldwide business where the supply of rare automotive allure is finite. Which is why he may again travel to Iran, as he did a couple of years ago for Symbolic, to ask of the government whether they'd be willing to sell any of the former Shah's collection of 400 vintage cars, including a gold-plated Ghia with only 700 miles on the odometer. Back then, Renwick was quoted an outrageous price for the collection and he walked away.

The mullahs were unenlightened. All they could think of was their investment. •

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Books

Brother Ray; cheating monkeys; space operas; and more

From left: The Ruskin Library, by MacCormac-Jamieson-Prichard; Seth Stei- Garage House; Frank Lloyd Wright's Fallin Water; the Musée d'Orsay, formerly known Gare d'Orsay; and Victor Horta's Hôtel Tas

Moving Pictures

TWENTIETH-CENTURYARCHITECTURE, by Jonathan Glancey; Overlook Press; $60 cl

Note the absence of the words "The Greatest" or "The Best Of" from the title of this fabulously illustrated guide to the most significant buildings of the last hundred years. Jonathan Glancey, a British architecture and design writer, could have stuck only to those structures that elevate the human spirit and reflect positively on the cultures that have produced them. And they're certainly here, among the nearly 400 buildings featured. But Glancey is a critic by trade and by temperament; he's not about to let our most egregious architectural sins go unpunished. After all, who would deny that the strain of cold, severe English public architecture (sometimes classified as "Brutalist") or the mammoth, nightmarish coastal defenses designed by Albert Speer in preparation for the All invasion of France are any less s nificant than the great works by M or Philip Johnson or Frank Geh No one who has contributed building of relevance in this cent is left out, and each short essay is companied by a stunning pho graph that captures the struct in all its majesty—or bombast sometimes outright horror.

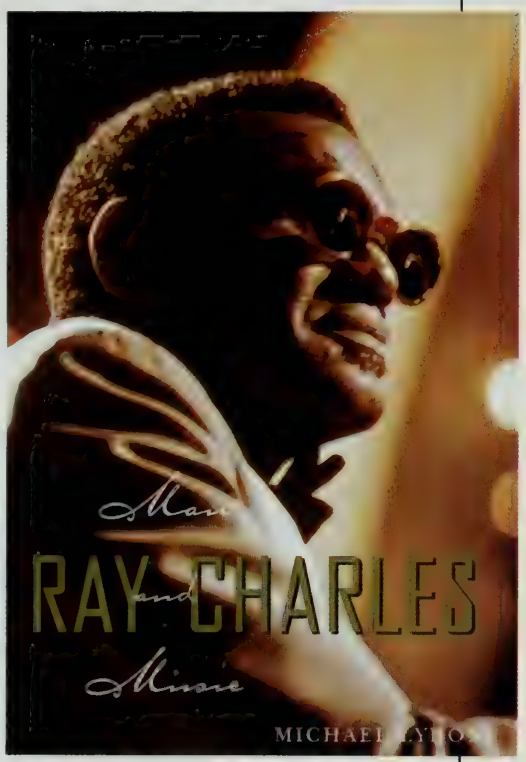
Required Reading

RAY CHARLES: Man and Music, by Michael Lydon; Riverhead Books; $28 cloth

If a national plebiscite were held tomorrow to determine an American singer laureate, someone whose body of work best synthesized the proud and variegated currents of music that have characterized the land and its people over the years, could we possibly crown anyone other than Ray Charles? Since we would never agree on which individual style of music was "most" American—jazz, country, rock 'n' roll, pastoral ballads, gospel hymns, rhythm and blues—we would be left with no alternative but to seek that very unlikely someone who has managed to cover them all in a way that highlights their affinities rather than their differences.

There is only one man who has ever come close to fitting that description, and in this admirable biography Michael Lydon (a founding editor of *Rolling Stone*) gives us an engrossing chronicle of the life and work of Ray Charles Robinson. Born of an illicit coupling between a father and his adopted teenaged daughter, raised in dire poverty in a Florida backwater during the height of Jim Crow, he experienced as a five-year-old the back-to-back tragedies central to his life. One summer day, his little brother drowned while the pair was splashing in some shallow water, right before Ray's eyes. Only months later, those eyes would begin to fail him; by the age of seven he was completely blind and being sent off alone on a train to the Florida School for the Deaf and Blind, which reserved a precious few slots each semester for black children.

There, Lydon tells us, Charles simultaneously cultivated a ferocious independence (which would later serve him very well in financial matters) and a passion for music that showed itself quickly and impressively. He quit school and, still a teenager, began playing gigs imitating his idols Nat "King" Cole and Charles Brown. Barnstorming cross-country, he began a life on the road that he still hasn't stopped living. Spotted by the yet-to-be-legendary Ahmet Ertegun, he was signed to Ertegun's fledgling Atlantic Records, where he finally began to emerge as a complete artist. The 1950s recordings he made on that label are considered by many critics and fans to be Charles's purest, most exciting work, and manifest his early genius for musical cross-pollination: the secular, sexualized gospel of "I Got A Woman" and "Hallelujah, I Love Her So," the shotgun marriage of rock and blues that make up "What'd I Say." In short order, he was at the top of his game and several *Billboard* charts.



Charles has always put forth a warm, smiling, aw-shucks public persona, but Lydon—while clearly and understandably in awe of his subject's accomplishments—isn't afraid to peek under those dark glasses and present a complete picture of this phenomenally talented but equally complicated man. Charles had demons, but if Lydon is to be believed, he embraced them as often as he wrestled with them. For more than 15 years he was addicted to heroin, and took a civil libertarian's offense at those authorities who would tell him what he could and couldn't put into his own body. Though married with children, Charles's womanizing was notorious. "To be a Raelet, you have to let Ray" went the informal advice given to the ever-changing bevy of slinky backup singers who have performed behind (and underneath) Charles as The Raelets over the years. The line between female employees and mistresses was so thin as to be nonexistent.

For their part, male employees—usually musicians—had to deal with their boss's code of perfectionism in concert and in the studio, deviation from which could trigger his mercurial temper and render even the most loyal and longstanding sidemen unemployed. Lydon quotes musicians and producers who, one after another, attest to the artist's ability to score sophisticated arrangements in his head, stacking vocals on top of horns on top of strings on top of piano, never making a mistake or expressing even the slightest uncertainty. The same forcefulness of personality led to a brilliant business decision that made him one of the wealthiest entertainers of his time:

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When ABC records wooed him away from Atlantic in 1959, Charles not only demanded seventy-five cents on every dollar of profit that his records made, but also ownership of the master tapes—deals unheard of at the time for any artist, black or white. At the end of 1960, the poor blind boy from rural Florida received a single check from ABC for $800,000; a year later he was worth twice that much.

Through no fault of the author, Lydon's book loses a bit of steam as it looks at Ray Charles's career in the years following his long ride at ABC. By the 1970s, his disciples had overtaken him, and though only in his early forties he found himself swiftly and uncomfortably relegated to the role of respected elder statesman rather than cutting-edge modernist. Today, a new generation of music listeners knows him for his early 1990s Pepsi-Cola commercials, if they know him at all. But age has been kind to his voice and spirit, and he continues to perform and record, still connecting with audiences, still, in the words of Michael Lydon, pursuing his "grand ambition: to absorb all American music, from its deepest roots to the present day, into his own music." —JEFF TURRENTINE

Keep Your Eyes Peeled

NEVER ENOUGH WORDS: How Americans Invented Expressions as Ingenious, Ornery and Colorful as Themselves, by Jeffrey McQuain; Random House; $25 cloth

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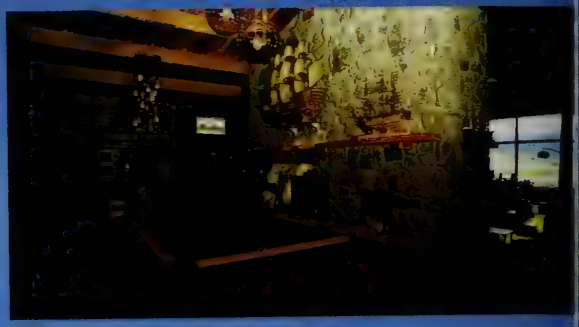

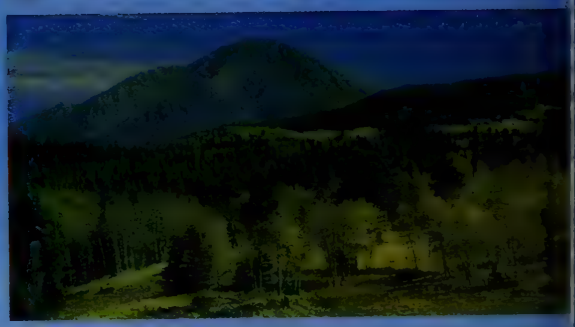

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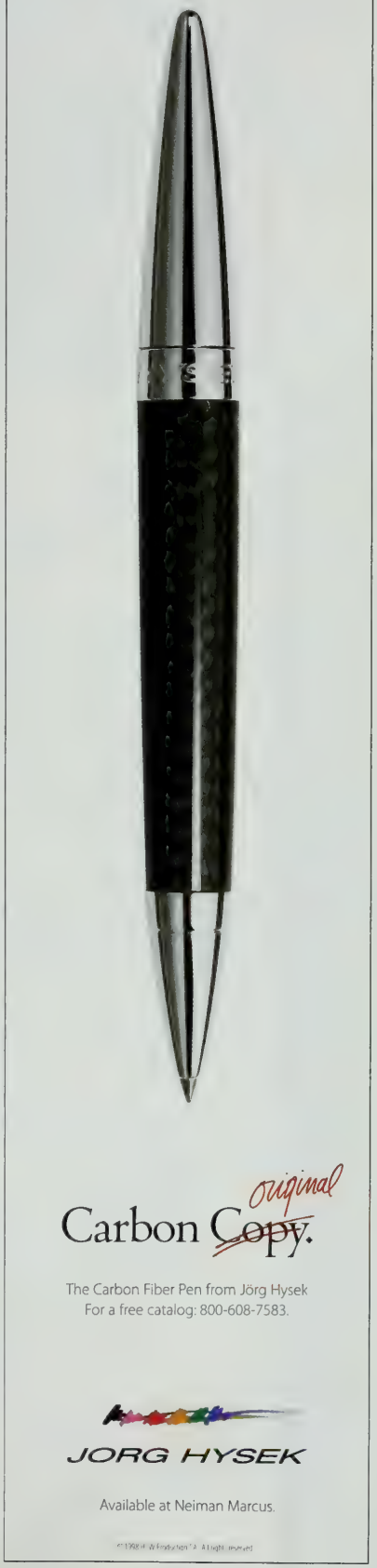
Our liberation from the tyranny of King George meant cultural as well as political freedom, and in no aspect of the culture have Americans exercised that freedom more whimsically and colorfully than in the creation of new words. His book is much more than a glossary, though it can almost be read as one. (Really miffed at your boss? Then in nineteenth-century parlance, you're "hot as an old radish." It may be time to "give him beans," i.e., let him have it in front of all your colleagues.) McQuain is a scholar who wants us to see the links between coinage and context—how, for instance, the name for the boundary around Civil War prison camps came to be an all-purpose term for a given project's time limit: the "deadline." Now *you* can be the smoothie at the cocktail party who says, "You know where *that* came from, don't you?" every time somebody else opens their mouth. —J.T.

TAKE FIVE, by D. Keith Mano; Dalkey Archive; $14.95 paper

D. Keith Mano was one of the bright young talents of the 1970s, writing compact, energetic and darkly comic novels like *Horn* and *War Is Heaven!* at the rate of a book a year. But then Mano seemed to disappear. Those who asked were told he was working on "something big." Indeed. *Take Five,* when it was published in 1982, baffled just about everyone who took the trouble to read it. The most conspicuous of the novel's many eccentricities was the fact that it was paginated backwards, beginning at page 583 and ending on page 1. This, evidently, to conform with the book's central plot device, which is the protagonist's loss of his five senses on his way to achieving grace. (His sense of taste goes when he pours stolen gasoline on his salad and manages to set his mouth on fire.) The book vanished almost without a trace and Mano, an occasional *FYI* contributor, rebuilt his career with a much different sort of novel, *Topless.* Now Dalkey Archive, as part of its American Literature Series, has resurrected (the right word, given Mano's theological concerns) *Take Five.* If you missed it the first time around, which is just about the closest thing in this world to a sure bet, try it on for size this trip. It's a tour de force, certainly. Perhaps even a masterpiece. And easily one of the damnedest books you will ever read. —GEOFFREY NORMAN

CHEATING MONKEYS AND CITIZEN BEES: The Nature of Cooperation in Animals and Humans, by Lee Dugatkin; Free Press; $25 cloth

You spit up for me, I'll spit up for you. So goes the motto of the female vampire bat, who is known to offer regurgitated blood to her hungry sisters on the condition that someday the favor be returned. This is one of the numerous examples Lee Dugatkin cites in this intriguing exploration of cooperative behavior within groups of animals. Survival in the animal world, it turns out, is a much more complicated affair than just eating and avoiding being eaten—one must be a deal maker and an alliance forger, sometimes even a martyr. Consider the guppies who volunteer a recon of predators for the good of the group, putting their own little skins at risk; lionesses who hunt large prey in coordinated packs, despite their aversion to sharing; and the naked mole rats who forego sex (no way!) in the interest of the colony at large. Dugatkin also attends to the mendacious aspects of life in the wild, showing how animals lie, cheat and mooch when the costs of cooperation outweigh the gains. Although he stretches in his contention that our knowledge of animal cooperation could be used to foster the same in humans, his insights



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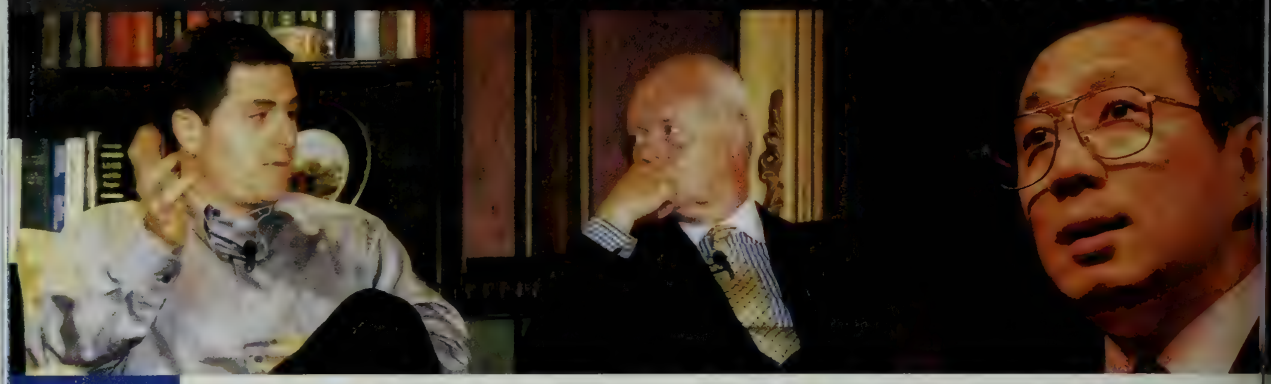

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nd anecdotes will be of great interest
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olitics and business.

—THOMAS JACKSON

DRINK: A Social History of America, by Andrew Barr; Carroll & Graf; $27 cloth

America's dysfunctional relationship with alcohol is the subject of this serious but entertainingly opinionated study by Andrew Barr, an English wine writer. In a ountry founded by puritans, it was nly a matter of time, Barr tells us, efore we succeeded in rewriting cohol's history as a fundamental cial building block—something mankind has been making, consuming and celebrating for many centuries. "*Drink* is history, but also polemic," he writes in his introduction, and he's not kidding. Bouncing back and forth along our national timeline, from the Colonial and Revolutionary eras to the present, Barr makes a strong case that the (moderate, responsible) consumption of spirits has always been linked to such quintessential American traits as boldness, action and independence—links that make perfect sense to most Europeans, by the way, whose attitudes toward drinking are far more sophisticated and far less steeped in guilt and shame. A diligently researched history, a rousing read and a feisty challenge to modern-day puritans, whether medical or religious, who would gladly see Jesus' wine turned back into water. —J.T.

The FYI Library

THE TEN ESSENTIAL WORKS OF SCIENCE FICTION, compiled by Thomas M. Disch, author of *The Dreams Our Stuff Is Made Of: How Science Fiction Conquered the World* (Free Press)

The Time Machine *(1895), by H.G. ells.* Among science fiction's an- stors, Wells remains the most etingly readable. Jules Verne, by mparison, is strictly an antiquarian taste. Wells' *War of the Worlds* can also still tingle the spine.

• **Brave New World** *(1932), by Aldous Huxley.* The greatest science-fiction

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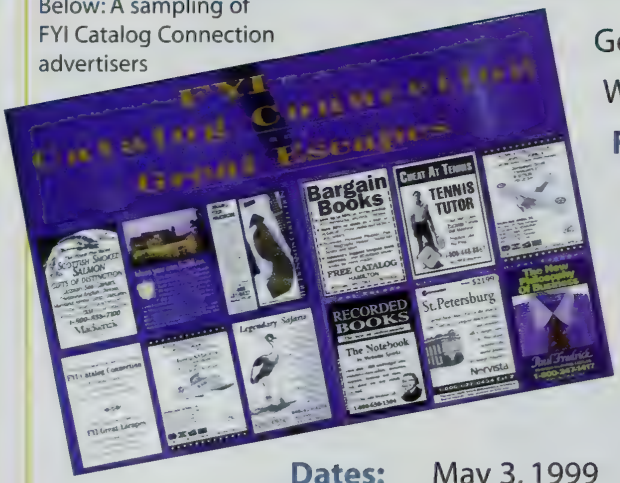

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The Space Merchants *(1952), by Frederik Pohl and C.M. Kornbluth.* The team of Kornbluth and Pohl represent the dawn of an era of science fiction written for grown-ups, as opposed to the Buck Rogers-style space operas of 1930s pulp magazines. This satire of an overpopulated world governed by advertising agencies has all the comic gusto of vintage "Saturday Night Live" episodes.

Childhood's End *(1953), by Arthur C. Clarke.* Clarke has written more science fiction classics than any writer living today—including the script for *2001: A Space Odyssey*, which he cowrote with director Stanley Kubrick—but he never surpassed this tale of mankind self-destructing for its own transcendental good. He's a true visionary, and this is his truest vision.

The Stars My Destination *(1956), by Alfred Bester.* The favorite science fiction novel of all those literary types who stopped reading the stuff circa 1960, when for a while the genre petered out—but not before this Big Bang of a book.

A Canticle for Leibowitz *(1960), by Walter M. Miller.* The greatest after-the-bomb story ever told, as history repeats itself with a new Dark Ages, another Renaissance and one more Cold War. With this book, science fiction not only comes of age but actually matures.

• **The Three Stigmata of Palmer Eldritch** *(1965), by Philip K. Dick.* Dick was, like the immensely more popular and equally prolific Robert Heinlein, a hasty craftsman with more good ideas than he knew what to do with. But a few of his books, like this hymn to paranoia, never go off the rails.

• **The Female Man** *(1975), by Joanna Russ.* Russ, along with Ursula K. LeGuin, marks the emergence of a welcome female (and feminist) presence into a genre that was long as exclusive a boy's club as the Citadel. Both have produced excellent novels, but Russ has a bit more vinegar in her than the prim LeGuin. It comes through in this bravura scream from the heart.

Cyberpunk has been the last major innovation in the genre, and William Gibson is its proud father.

• **The Book of the New Sun** *(1983), by Gene Wolfe.* Forget *Dune*. This tetralogy, which kicks off with *The Shadow of the Torturer* (1980), is *the* space opera at the end of time. In the 1980s, the success of the *Star Trek* and *Star Wars* franchises had a dismal impact on science fiction, which reverted to its pulp childhood. Wolfe's work is typical of this retro tendency, but it's also a monument of irreproachable literary finesse.

• **Neuromancer** *(1984), by William Gibson.* Cyberpunk has been the last major innovation in the genre, and William Gibson is its proud father. Read him and consider yourself an inhabitant of the twenty-first century. •

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Some see chill between president, wife

Horse Slaughter Suspect Is Described as Cocky

RENO, Nev.—A man accused with two Marines of killing 34 wild horses for sport was described by neighbors as a cocky sort who used to blast birds outside his apartment with a shotgun and once gutted a deer on his living room carpet.

A New Jersey man who the police said was trying to steal a car from a Montclair, N.J., parking garage early Wednesday afternoon made the mistake of bringing his 5-year-old son along.

The man, John Craig Clifton, 38, was stopped by a police officer who was investigating a report of suspicious activity. When questioned by the officer, Mr. Clifton said he was walking with his son, according to Police Chief Thomas J. Russo. But the police said the boy — in the time-honored tradition of observant small children — piped up with, "My daddy was trying to break a window on a car."

When Mr. Clifton became "very angry," Chief Russo said, the child replied: "Yes, you did, Daddy. Don't lie to the police."

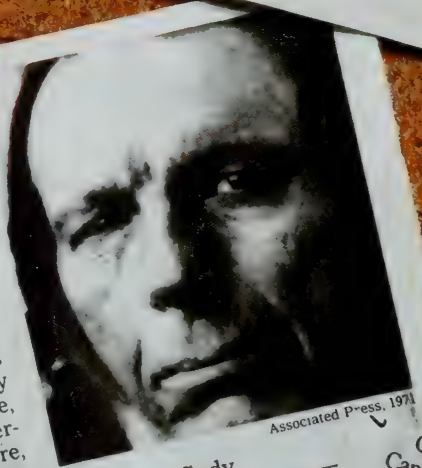
12/26, 11:06 a.m. — Police received a report of a person stuck in an el vator at Whippoorwill Commons on Whippoorwill Road East. The perso was extricated and an "out of order" sign was placed on the elevator.

12/26, 3:58 p.m. — Police received a report that an elevator repairman was stuck in the elevator at Whippoorwill Commons. Police responded and freed the repairman.

By AMY WALDMAN

Iron Eyes Cody, the actor who played an Indian shedding a tear at the sight of a littered American landscape in one of television's best-known and most-honored television commercials, died yesterday at his home in Los Angeles, the police said. He was 94.

Although the television and movie-viewing public generally think of Mr. Cody as an American Indian, his heritage was questioned in 1996 by The New Orleans Times-Picayune, which reported, based on an interview with a half sister, May Abshire, and baptismal records and other documentation, that Mr. Cody was a second-generation Italian-American from Louisiana.



Associated Press, 1971

Iron Eyes Cody

Countered Joseph S. Oteri, one of Capano's four attorneys: "Tom Capano did a number of things that you would probably find offensive, like carrying on a string of affairs while he was married, like telling a million lies about this particular case, like dumping Anne Marie's body in the ocean. But you can't vote guilty just because you don't like him."